

CENTER OF POPULATION AND MEDIAN LINES, AND CENTERS OF AREA, AGRICULTURE, MANUFACTURES, AND COTTON.

CENTER OF POPULATION.

After the decennial census has been completed it is of great interest to note the direction in which the center of population has moved during the decade, the movement being shown by the change in its location. On the basis of the Fourteenth Census returns the center of population and the median lines for continental United States have been determined for January 1, 1920. In these calculations no account is taken of the territory and population of Alaska and of other noncontiguous territory. The location of the center at the dates of the several censuses, 1790 to 1920, and the movement of the point from decade to decade are indicated in the tables and maps of the present bulletin, which includes, also, a map on which are drawn the median parallel of latitude and the median meridian of longitude, 1920.

A somewhat technical significance, different from that frequently given to it, attaches to the term "center of population," as used in census publications. The center is often understood to be the point of intersection of a north and south line, which divides the population equally, with an east and west line, which likewise divides it equally. This point of intersection is, in a certain sense, a center of population; it is here, however, designated the median point to distinguish it from the point technically defined as the center.

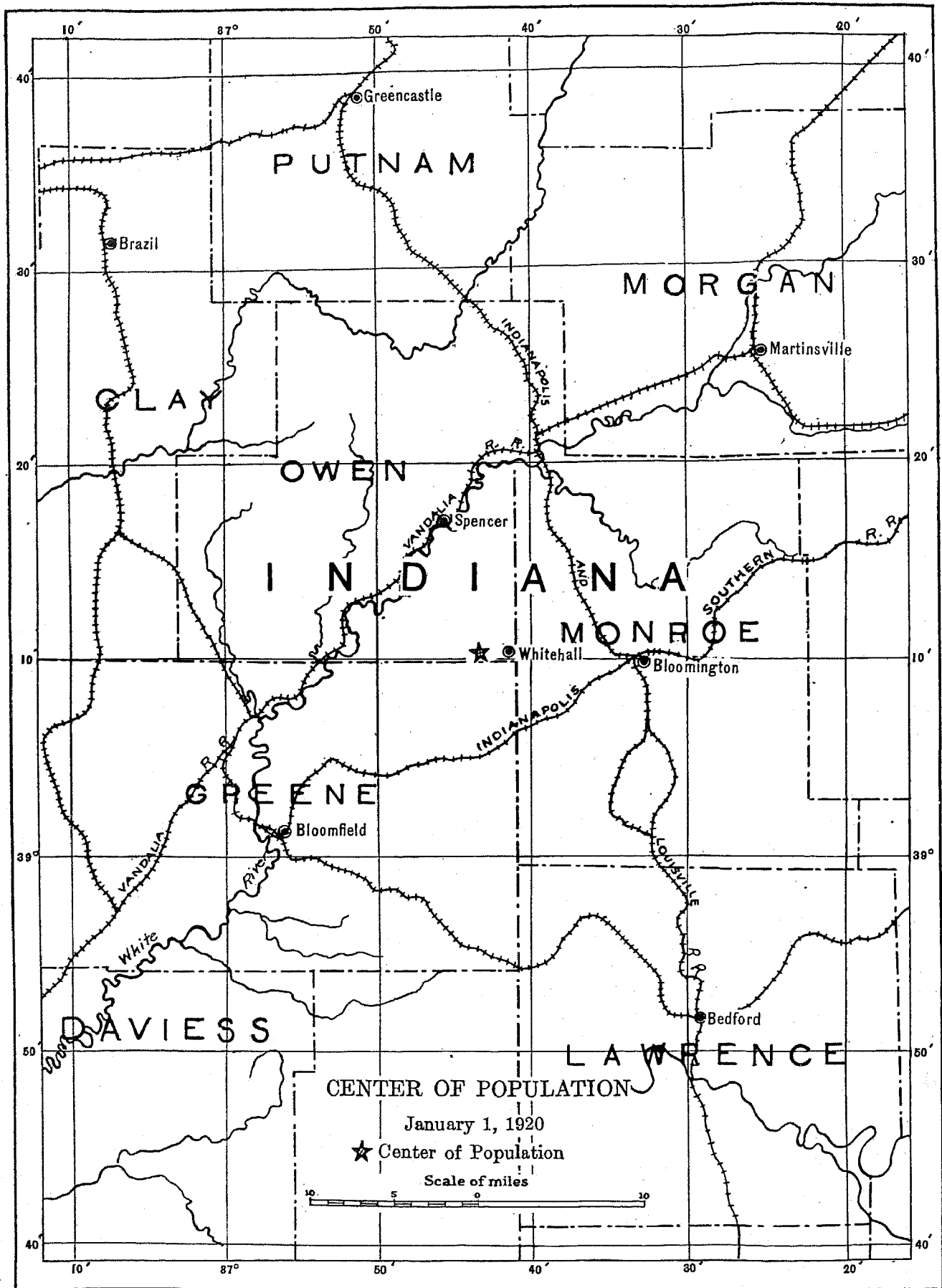
There are points different in character which may be termed "center of population," but at each census the term "center of population" has been applied to the point which may be considered as the center of gravity of the United States; in other words, the point upon which the United States would balance, if it were a rigid plane without weight and the population distributed thereon, each individual being assumed to have equal weight and to exert an influence on the central point proportional to his distance from the point. The pivotal point, therefore, would be its center of gravity and is the point referred to by the term used in the census as "center of population." This is sometimes confused with another point which we term the "median point." Continuing the above analogy it may be noted that the median point, which may be described as the numerical center of population, is in no sense a center of gravity. In determining the median point distance is not taken into account and the location of the units of population is considered only in relation to the intersecting median lines—

as being north or south of the median parallel and east or west of the median meridian. It is evident that extensive changes in the geographical distribution of the population may take place without affecting the position of the median point. In this respect the median point differs essentially from the center of population, which responds to the slightest population change in any section of the country. To illustrate: Since the median point lies east of Minnesota, a million persons could move from Minnesota to Oregon without affecting the median point, while the movement of 500 persons from one town in Indiana to another, across the north and south line passing through the median point, would change the location of the point. On the other hand, a movement of a million persons from Minnesota to Oregon would have a very considerable effect on the center of population, since, in terms of the above analogy, the pressure exerted by each individual would increase in proportion to the distance traveled away from the center. If all the people in the United States were to be assembled at one place, the center of population would be the point which they could reach with the minimum aggregate travel, assuming that they all traveled in direct lines from their residence to the meeting place. No such statement holds true of the median point.

METHOD OF DETERMINING THE CENTER OF POPULATION.

In making the computations for the location of the center of population it is necessary to assume that the center is at a certain point. Through this point a parallel and a meridian are drawn, crossing the entire country. In making the computations for 1920, the same point was selected as in 1910; this intersection was assumed to be where the parallel of 39° north latitude intersects the meridian of 86° west longitude, which lines were taken as the axes of moments.

The product of the population of a given area by its distance from the assumed parallel is called a north or south moment, and the product of the population of the area by its distance from the assumed meridian is called an east or west moment. In calculating north and south moments the distances are measured in minutes of arc; in calculating east and west moments it is necessary to use miles on account of the unequal length of the degrees and minutes in different latitudes. The population of the country is grouped by square degrees—that is, by areas included between consecutive parallels and meridians—as they are con-



venient units with which to work. The population of the principal cities is then deducted from that of the respective square degrees in which they lie and treated separately. The center of population of each square degree is assumed to be at its geographical center except where such an assumption is manifestly incorrect; in these cases the position of the center of population of the square degree is estimated as nearly as possible. The population of each square degree north and south of the assumed parallel is multiplied by the distance of its center from that parallel; a similar calculation is made for the principal cities; and the sum of the north moments and the sum of the south moments are ascertained. The difference between these two sums, divided by the total population of the country, gives a correction to the latitude. In a similar manner the sums of the east and of the west moments are ascertained and from them the correction in longitude is made.

At the Fourteenth Census the center of population was in the following position:

Latitude..... 39° 10' 21" N.
Longitude..... 86° 43' 15" W.

This point is in southwestern Indiana, 1.9 miles west of Whitehall, Clay township, and 8.3 miles south-southeast of Spencer, Washington township, Owen County, Ind., as shown on the map on page 6.

During the last decade, 1910 to 1920, the center of population moved west 10' 55", approximately 9.8 miles, the smallest movement the center has ever shown, and about one-fourth of its westward movement from 1900 to 1910, while its northward movement was only 9", or approximately two-tenths of a mile. The great increase in the population of New York, Pennsylvania, and certain other states north of the thirty-ninth parallel has balanced the increase in Texas, Oklahoma, and southern California. The advance toward the West is, to a large extent, due to the increase in the population of the Pacific Coast states, their distance from the center giving any increase of population in those states much greater weight than an equal increase in the populous states east, which are nearer the center. The cities of Seattle, San Francisco, and Los Angeles, with a combined population of 1,398,661, exert a greater influence on the center of population than the cities of Baltimore, Boston, Buffalo, Cleveland, Philadelphia, and Pittsburgh, with a combined population of 5,197,624.

The westward movement from 1910 to 1920 was due principally to the increase of over 1,000,000 in the population of the state of California, which had a greater growth than at the previous decade, from 1900 to 1910. In this connection it would be well to call attention to the fact that individuals in the states on the Pacific coast exert an influence on the center of

population proportional to their distance from the center.

There has been slight change in the northern movement of the center of population since 1900, as from 1900 to 1910 the northern movement was 0.7 of a mile and from 1910 to 1920 a little less than 0.2 of a mile, showing that the weight of the population of the United States north and south of the thirty-ninth parallel was nearly equal.

The result of the computations in 1920 for the location of the median point shows that it had moved east 8.8 miles, while, during the same decade, the center of population had a western movement of 9.8 miles. The movement in opposite directions of the two points shows in a striking manner the difference in the character of the methods used for their location. There was very slight difference in the northern movement of the two points, the median point having made practically no change since 1910 (0.019 of a mile), and the center of population moving only 0.2 of a mile.

LOCATION OF THE CENTER OF POPULATION AT PRIOR CENSUSES.

In 1790 the center of population was at 39° 16' 30" north latitude and 76° 11' 12" west longitude, which, according to the best maps, is a point in Maryland about 23 miles east of Baltimore. During the decade from 1790 to 1800 it moved almost due west to a point about 18 miles west of the same city, latitude 39° 16' 6", longitude 76° 56' 30".

From 1800 to 1810 it moved west and slightly south to a point in the state of Virginia about 40 miles northwest by west of Washington, D. C., latitude 39° 11' 30", longitude 77° 37' 12". The southward movement during this decade was due to the annexation of the territory of Louisiana, which contained quite extensive settlements.

From 1810 to 1820 the center of population moved west and again slightly south to a point in what is now West Virginia, about 16 miles east of Moorefield, latitude 39° 5' 42", longitude 78° 33'. This second southward movement was due principally to the extension of settlements in Mississippi, Alabama, and eastern Georgia.

From 1820 to 1830 it again moved west and south to a point about 19 miles west-southwest of Moorefield, in the area now comprising the state of West Virginia, latitude 38° 57' 54", longitude 79° 16' 54". This is the most decided southward movement that it has made during any decade, owing to the annexation of Florida and the great extension of settlements in Alabama, Louisiana, Mississippi, and Arkansas, or generally, it may be said, in the Southwest. The movement from 1870 to 1880 was apparently greater, but this was due chiefly to a defective enumeration in 1870, and can not be considered as an actual change in the distribution of population.

From 1830 to 1840 it continued west, but slightly changed its course to the north, reaching a point 16 miles south of Clarksburg, in the area now comprising the state of West Virginia, latitude $39^{\circ} 2'$, longitude $80^{\circ} 18'$. During this decade population had increased rapidly in the Prairie states and in the southern portions of Michigan and Wisconsin.

From 1840 to 1850 the center moved west and slightly south again, reaching a point about 23 miles southeast of Parkersburg, in the area now comprising the state of West Virginia, latitude $38^{\circ} 59'$, longitude $81^{\circ} 19'$, the change of direction to the south being largely due to the annexation of Texas.

From 1850 to 1860 it moved west and slightly north, reaching a point 20 miles south by east of Chillicothe, Ohio, latitude $39^{\circ} 0' 24''$, longitude $82^{\circ} 48' 48''$.

From 1860 to 1870 it moved west and sharply north, reaching a point about 48 miles east by north of Cincinnati, Ohio, in latitude $39^{\circ} 12'$, longitude $83^{\circ} 35' 42''$. This northward movement was due in part to the waste and destruction in the South, consequent upon the Civil War, and in part to the fact that the census of 1870 was defective in its enumeration of the southern people, especially of the newly enfranchised Negro population.

In 1880 the center of population had returned south to nearly the latitude occupied in 1860, being in Kentucky, just south of the Ohio River, in latitude $39^{\circ} 4' 8''$, longitude $84^{\circ} 39' 40''$, 8 miles west by south of Cincinnati, Ohio.

In 1890, owing to the great increase of population in the cities of the Northwest and in the state of Washington, also in New England, the center moved north

to latitude $39^{\circ} 11' 56''$, longitude $85^{\circ} 32' 53''$, to a point 20 miles east of Columbus, Ind. •

During the decade from 1890 to 1900 the center of population moved west $16' 1''$, or 14.6 miles, to longitude $85^{\circ} 48' 54''$, and south $2' 20''$, or 2.8 miles, to latitude $39^{\circ} 9' 36''$, to a point 6 miles southeast of Columbus, Ind. The great increase in the population of Indian Territory, Oklahoma, and Texas was largely offset by an increase in the population of the North Atlantic states.

In 1910 the center of population was at the point where the parallel of latitude of $39^{\circ} 10' 12''$ N. intersects the meridian of longitude of $86^{\circ} 32' 20''$ W. and for the first time in its history was located in a city, the city of Bloomington, Ind. From 1900 to 1910 it moved 0.7 of a mile north and 38.9 miles west, the westward movement being nearly three times as great as from 1890 to 1900, but was less than the westward movement for all previous decades, except between 1800 and 1810.

The closeness with which the center of population throughout its westward movement has clung to the thirty-ninth parallel of latitude is remarkable. The point farthest north was reached in 1790 and the farthest south in 1830, but the difference was only 21.4 miles. The greatest movement west was during the decade from 1850 to 1860, when the center advanced 80.6 miles; the least movement west was during the last decade, from 1910 to 1920, when it advanced 9.8 miles. The total westward movement from 1790 to 1920 was 567 miles. The following table and the map on page 9 show the location of the center of population and its advance during each decade since 1790:

POSITION OF THE CENTER OF POPULATION: 1790 TO 1920.

CENSUS YEAR.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.	MOVEMENT IN MILES DURING PRECEDING DECADE.			
				From point to point in direct line.	Westward.	Northward.	Southward.
1790.....	39 16 30	76 11 12	23 miles east of Baltimore, Md.....				
1800.....	39 16 6	76 56 30	18 miles west of Baltimore, Md.....	40.6	40.6		0.5
1810.....	39 11 30	77 37 12	40 miles northwest by west of Washington, D. C. (in Va.).	36.9	36.5		5.3
1820.....	39 5 42	78 33 0	16 miles east of Moorefield, W. Va. ¹	50.5	50.1		6.7
1830.....	38 57 54	79 16 54	19 miles west-southwest of Moorefield, W. Va. ¹	40.4	39.4		9.0
1840.....	39 2 0	80 18 0	16 miles south of Clarksburg, W. Va. ¹	55.0	54.8	4.7	
1850.....	38 59 0	81 19 0	23 miles southeast of Parkersburg, W. Va. ¹	54.8	54.7		3.5
1860.....	39 0 24	82 48 48	20 miles south by east of Chillicothe, Ohio.....	80.6	80.6	1.6	
1870.....	39 12 0	83 35 42	48 miles east by north of Cincinnati, Ohio.....	44.1	42.1	13.3	
1880.....	39 4 8	84 39 40	8 miles west by south of Cincinnati, Ohio (in Ky.).....	58.1	57.4		9.1
1890.....	39 11 56	85 32 53	20 miles east of Columbus, Ind.....	48.6	47.7	9.0	
1900.....	39 9 36	85 48 54	6 miles southeast of Columbus, Ind.....	14.6	14.4		2.8
1910.....	39 10 12	86 32 20	In the city of Bloomington, Ind.....	39.0	38.9	0.7	
1920.....	39 10 21	86 43 15	1.9 miles west of Whitehall, Clay township, Owen County, Ind.; 8.3 miles south-southeast of Spencer, Washington township, Owen County, Ind.	9.8	9.8	0.2	

¹ West Virginia was set off from Virginia Dec. 31, 1862; admitted as a state June 19, 1863.

MEDIAN LINES.

In connection with the definition of the median point another method of presenting facts with regard to the geographical distribution of the population has been noted, involving the location of median lines. A parallel of latitude is determined which evenly divides the population so that the population north of that parallel is equal to that south. Similarly, a meridian of longitude is determined which divides the population evenly east and west of the line. In calculating these median lines it is necessary, in the case of the square degrees of latitude and longitude which are traversed by the lines themselves, to assume that the population is evenly distributed through these square degrees or to make an estimated adjustment where this is obviously not the case.

The eastern terminus of the median parallel, according to the census of 1920, is on the New Jersey coast near Seagirt. In its course west this line passes through central New Jersey, leaving the state near Burlington and entering Pennsylvania a few miles north of Philadelphia, thence

passing through Norristown and continuing through southern Pennsylvania and across the northern extremity of West Virginia, leaving the latter state at a point a few miles north of Wheeling. It nearly bisects Ohio, Indiana, and Illinois, crossing about 10 miles north of Columbus, Ohio, 25 miles north of Indianapolis, Ind., and about 20 miles north of Springfield, Ill. Through Missouri it runs about 30 miles south of the Iowa and Missouri line, thence passing through Nebraska about 10 miles north of its southern boundary, and across the northern part of Colorado, passing about 5 miles north of Boulder city. Its location in Utah is about 45 miles south of Salt Lake City, near Spanish Fork city. There are no large towns near its course across the northern part of Nevada. In California it passes 5 miles south of Red Bluff city, Tehama County. The western terminus of the median parallel is on the Pacific coast, in Humboldt County, Calif., about 5 miles north of Point Delgada and 25 miles south of Cape Mendocino, the point of continental United States extending farthest west.

MEDIAN LINES: 1880 TO 1920.

CENSUS YEAR.	Median parallel, north latitude.	Median meridian, west longitude.	MOVEMENT IN MILES DURING PRECEDING DECADE.		
			Median parallel northward.	Median meridian westward.	Median meridian eastward.
1880.....	39 57 0	84 7 12			
1890.....	40 2 51	84 40 1	6.6	27.0	
1900.....	40 4 22	84 51 29	2.4	10.8	
1910.....	40 6 24	84 59 59	2.3	7.5	
1920.....	40 6 25	84 49 59	0.019		8.8

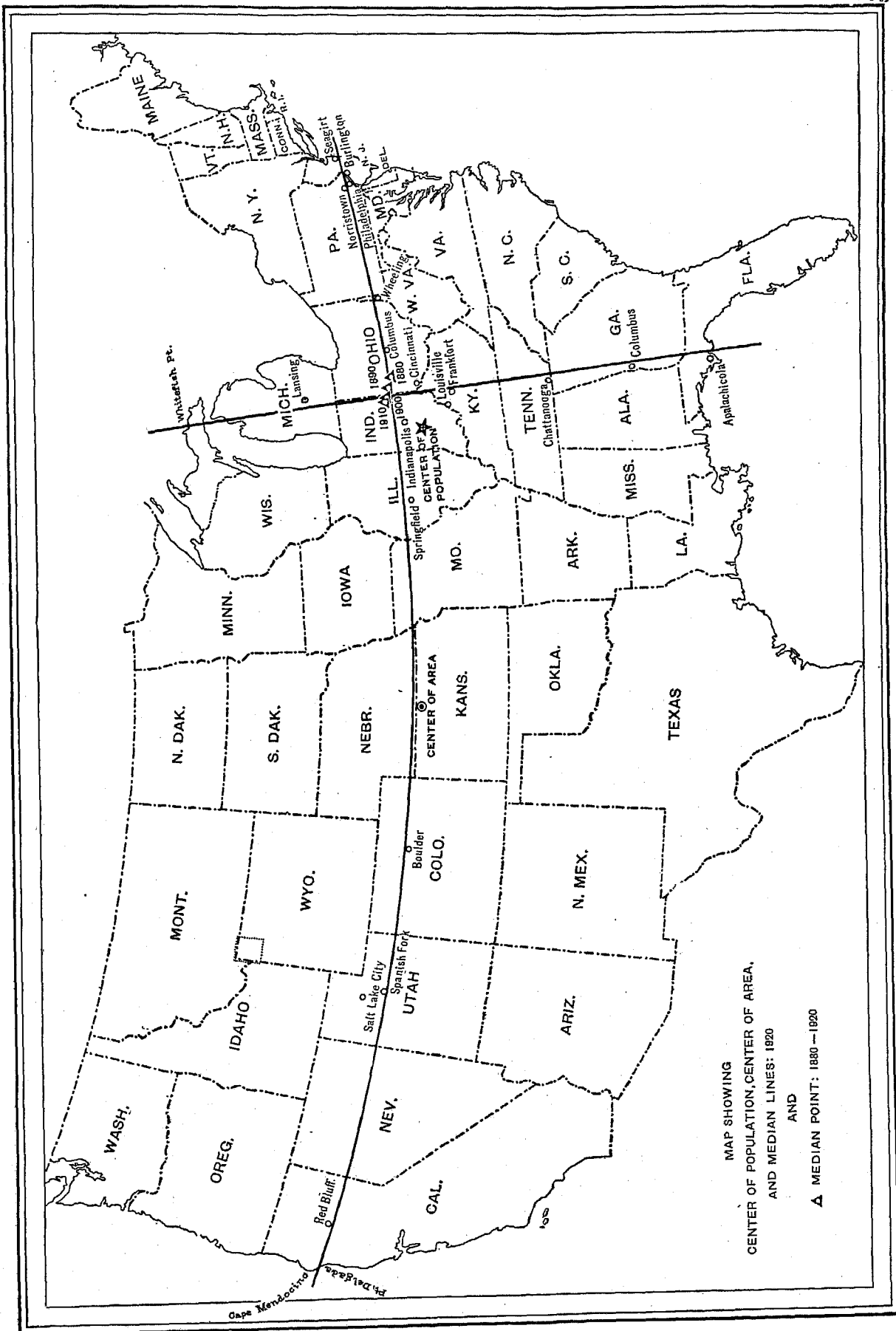
In locating the median meridian, it was found that it had moved 8.8 miles east since 1910, and its northern end was located 8 miles east of Whitefish Point in the northern peninsula of Michigan; from that point it passes south through the southern peninsula of Michigan, about 10 miles west of Lansing, approximately 1 mile west of the eastern boundary of Indiana, and crosses the Ohio River about 15 miles west of Cincinnati, Ohio, thence through the central part of Kentucky, passing through Frankfort. After crossing eastern Tennessee, it enters Georgia about 20 miles east of Chattanooga. It then crosses the western part of Georgia about 5 miles east of Columbus and leaves this state and enters Florida where the Florida-Georgia boundary line crosses the Apalachicola River and ends in the Gulf of Mexico, 8 miles east of Apalachicola.

During the three decades from 1880 to 1910, there was little change in the position of the median parallel, the changes being so slight they could not be indicated

on a small map. During the decade from 1910 to 1920, the median parallel was practically in the same location, but the median meridian moved east 8.8 miles. This was due entirely to the great increase in population of the states on the Atlantic slope.

The greatest change is noted for the decade from 1880 to 1890, during which period the median parallel moved north 6.6 miles, and the median meridian west 27 miles. The latitude and longitude of these lines at the several censuses, from 1880 to 1920, are shown in the above table, and their location in 1920 is shown on the map on page 11.

Although the median line exactly bisects the population as a whole it does not necessarily bisect the population of the eastern or western parts of the country. The median parallel does not bisect even approximately the population residing east or west of the Mississippi River. The intersecting median lines divide the country into four parts, but in neither of these parts is there exactly one-fourth of the total



population. The diagonally opposite sections, however, are necessarily equal in population;¹ that is, the northeastern section exactly equals in population the southwestern and, similarly, the population of the southeastern section exactly equals the population of the northwestern; in other words, the northeastern and southwestern quarters each contain a population of approximately 31,450,000, while the southeastern and northwestern sections each contain about 21,400,000.

MEDIAN POINT.

The movement of the center of population in 1920, as compared with the movement of the median point, shows that the computations are made on an entirely different basis and the results are really not comparable. In other words, the median point and the center of population are affected differently by the movement of population. From 1910 to 1920 the center of population moved west 9.8 miles, while the median point moved east 8.8 miles. The effect of the increase in population of 1,000,000 persons in California was much less on the median point than it was on the center of population, due to the fact that the distance of the individual from the median point does not affect it. It will also be noted that both the center of population and the median point had a very slight northern movement, being located on parallels of latitude less than a degree apart.

What is termed by the Census Bureau the "median point" of the population corresponds, as already stated, to a common conception of the center of population; that is, it is the junction of the median line dividing the population equally north and south with the median line dividing it equally east and west, distance of the population from the center not being considered. As already indicated, the changes in the median point reflect only the difference between the growth of population east of the point and the growth west of it and the difference between the growth north and south of the point; other differences in relative growth do not affect its location.

In 1920 the median point was located at latitude $40^{\circ} 6' 25''$ north and longitude $84^{\circ} 49' 59''$ west, near the eighty-fifth meridian. Its location, therefore, was 6 miles slightly west of south of Union City, Randolph County, Ind.; its eastward movement during the decade was 8.8 miles and its northward movement 0.019 of a mile. Comparing its movement since 1910 with that of the center of population, it will be noted that the north movement of the center of population

was 0.18 of a mile more than that of the median point; the center of population moved west 9.8 miles, while the median point moved east 8.8 miles, showing that the increase in the population of the Pacific coast had a much greater influence on the movement of the center of population than upon the median point.

It will be noted that the location of the median point was 121 miles northeast of the center of population in 1920, showing the divergence of the methods of finding the two points (the center of population and the median point).

The exact location of the median point is indicated by the median lines already shown; in the following table its approximate location with reference to certain towns is described:

POSITION OF THE MEDIAN POINT: 1880 TO 1920.

CENSUS YEAR.	Approximate location by important towns.
1880.....	16 miles nearly due west of Springfield, Ohio.
1890.....	5 miles southwest of Greenville, Ohio.
1900.....	In Spartanburg, Ind.
1910.....	3 miles south of Winchester, Ind.
1920.....	6 miles slightly west of south of Union City, Ind.

CENTERS OF POPULATION OF STATES.

The center of the population of each of the states is shown on pages 18 to 31, and the location of each of the points, from 1880 to 1920, is shown in the table on pages 14 to 17.

There have been so many requests as to the location of the centers of population of the various states that the computations were first made in 1910 for the censuses beginning with the census of 1880, and they have been again computed for 1920.

The direction of the movement of the center in each state during the last 40 years is a matter of interest, showing as it does the direction in which the population has grown and, to a certain extent, the direction in which the state has developed.

From 1900 to 1920 the center of population of the United States, exclusive of its outlying possessions, moved west and north. A comparison of the movements of the centers of population of the states, including the District of Columbia, during the decade from 1910 to 1920 brings out the fact that the centers of 23 states moved north, while for 26 states the movement was south; the centers of population of 26 of the states moved east and of 23 moved west. The movement of the center of population of each state does not, therefore, coincide with the movement of the center of population of the entire United States.

As an analysis of the movement of the center of population for each state was deemed impracticable, only a brief description is given of the movement for a few of the states in which the variation of the movement of the center presents some exceptional features. The center of population of California from 1880 to

¹ The mathematical demonstration of this is simple. If A, B, C, and D represent, respectively, the population of the northwestern, northeastern, southeastern, and southwestern sections, then:

$$A+B=\frac{1}{2} \text{ population of U. S.}$$

$$B+C=\frac{1}{2} \text{ population of U. S.}$$

$$A+B=B+C$$

$$\text{Therefore } A=C$$

Similarly it may be proven that $B=D$.

1890, advanced 34.9 miles south and 23.1 miles east, an actual distance of 41.9 miles; this was the greatest advance made during that decade in any state. From 1890 to 1900 Oklahoma held this distinction, when the movement of the center was 30.7 miles, the north movement 13.2 miles and the west movement 27.7 miles. The greatest movement from 1900 to 1910 was made in North Dakota, the distance the center moved being 44.7 miles, made up of a south movement of 1.3 miles and a west movement of 44.7 miles. The greatest distance any center moved from 1910 to 1920 was in the state of Montana. It moved 38.3 miles northeast by east to a point 9.7 miles southwest of Utica, Judith Basin County.

The greatest distance the center of population of any state advanced during the 40 years from 1880 to 1920 was in California. The center moved in a southeasterly direction 130 miles, the point in 1880 being located 3.3 miles east by south of Moorland, San Joaquin County, and in 1920, 36.2 miles south-southwest of Fresno, Fresno County.

It is well, also, to note those states in which the least change occurred in the location of the center. The center of population of Massachusetts from 1880 to 1890 advanced one-tenth of a mile east; there was no north nor south movement; from 1890 to 1900 there was a south movement of two-tenths of a mile, and a movement east of 158 feet. From 1900 to 1910 it had an eastern movement of 2.6 miles and one-tenth of a mile north, while from 1910 to 1920 it moved five-tenths of a mile south-southwest.

In Delaware, from 1900 to 1910, the movement was three-tenths of a mile north and four-tenths of a mile west; from 1910 to 1920 the movement was accelerated when the center moved 15.6 miles north by east, the greatest movement that the center has ever made in this state.

The smallest change in the location of the center made during the period from 1880 to 1920 was in Rhode Island; its center of population during the 40 years moved 1.7 miles directly north. The center of population of this state in 1880 was located 4.1 miles southwest by south of Providence and in 1920 it was 2.3 miles southwest of the same city.

The center of population of New York state in 1880 was 3 miles northwest by west of Craigeclare, Sullivan County, and in 1920 it was 3.8 miles south by west of Forestine, in the same county. The distance traversed was 6.5 miles from 1880 to 1890; 9.5 miles from 1890 to 1900; 11 miles from 1900 to 1910; and 3.9 miles from 1910 to 1920. The movement was south and east from 1880 to 1920, except from 1900 to 1910, when the movement was south and west.

Although Texas has the greatest area of any state, the movements of the center were not large, as the development in all parts of the state has been nearly uniform. The center in 1880 was located 6.4 miles

southwest of Thornton, Limestone County; in the 40 years to 1920, it had shifted to 12.1 miles southwest of Waco, McLennan County. The northwestern movement from 1880 to 1890 was 13.7 miles; from 1890 to 1900, 3.2 miles; from 1900 to 1910, 22.6 miles; while from 1910 to 1920 it was 5 miles southwest.

The states which show the greatest variation in the location of the center are Arizona, Kansas, Nevada, and New Jersey. For Arizona the movement shown in 1890 was 2 miles south and one-tenth of a mile west; from 1890 to 1900 it reversed the direction to 21.2 miles north and 9.3 miles east, an actual distance of 23.2 miles. During the decade from 1900 to 1910 it moved 11.5 miles south and 15.7 miles east, and from 1910 to 1920 it moved almost directly west 13.3 miles. For Kansas, while the movement was south at each census, from 1880 to 1890 it advanced westward 24.3 miles; from 1890 to 1900, 22.3 miles east; while from 1900 to 1910 the direction again changed to the west, 5.7 miles; from 1910 to 1920 the western movement was only four-tenths of a mile, a net movement during the 40 years of 9.9 miles south and 8.1 miles west. From 1880 to 1890 the movement in Nevada was south 11.2 miles and west 2.1 miles; from 1890 to 1900 it changed, moving north 22.6 miles and east 11 miles. The development of the mines between 1900 and 1910 in the southeastern portion of the state again changed the direction and produced the greatest advance at any decade, the movement being 40 miles south and 14.2 miles east, an actual distance of 42.4 miles; from 1910 to 1920 it moved 4.8 miles north-northeast, the smallest change it had ever made. During the 40 years from 1880 to 1920 the net movement was 24.1 miles south and 25 miles east. New Jersey has also shown considerable change in the direction of the movement of its center of population. From 1880 to 1890 it was 13.2 miles north and seven-tenths of a mile east; in the next decade, from 1890 to 1900, the movement was 10.8 miles south and five-tenths of a mile east; from 1900 to 1910 it again moved north 1.7 miles and east 2.9 miles, and from 1910 to 1920 the movement was southeast, 2 miles.

The movement of the center of population of the states of Maine, Massachusetts, and Oklahoma varied in direction at each decade more than any of the other states, the movement in each state being reversed at each census.

Connecticut shows very small but steady movements south and west, the distance from 1880 to 1890 being 1.9 miles; from 1890 to 1900, 1 mile; from 1900 to 1910, 1.3 miles; and from 1910 to 1920, 1.6 miles.

In Illinois the effect of the growth of Chicago on the center of population is evident from its northeast movement at each census, the actual distance from 1880 to 1890 being 18.4 miles; from 1890 to 1900, 10.8 miles; from 1900 to 1910, 6.4 miles; and from 1910 to 1920, 7.1 miles northeast.

FOURTEENTH CENSUS: 1920.

There were only seven states in which the center of population moved in the same general direction at each census from 1880 to 1920. These states are as follows: In the state of Illinois it moved north and east; for California and Georgia the movement was south and east; for Connecticut, North Carolina, and West Virginia the movement was south and west; and for Maryland the movement was north and west.

A comparison of the maps, pages 18 to 31, on which are located the centers of population of the states, will bring to our attention the fact that in only nine

states are the centers of population near the state capitals. The nine states are Arkansas, Delaware, Indiana, Missouri, Montana, New Hampshire, Rhode Island, South Carolina, and Vermont. As the center of population is the point from which all the population is supposed to be equidistant, if it were necessary to assemble all the inhabitants of a state at one place, each individual to travel in a direct line from his residence to the meeting place, the center of population is the point they could all reach with the minimum aggregate of travel.

CENTERS OF POPULATION OF EACH STATE: 1880 TO 1920.

STATE.	Census year.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.		MOVEMENT IN MILES DURING PRECEDING DECADE.				
				County.	Nearest city or town.	From point to point in direct line.	Northward.	Southward.	Eastward.	Westward.
ALABAMA.....	1880	32 51 9	86 43 16	Chilton.....	5.5 miles W. by N. of Clanton, Chilton County.....					
	1890	32 54 38	86 44 46	Chilton.....	3.4 miles S. by E. of Jemison, Chilton County.....	4.3	4.0			1.5
	1900	32 53 13	86 42 18	Chilton.....	5.7 miles SSE. of Jemison, Chilton County.....	2.9		1.6	2.4	
	1910	32 54 7	86 42 29	Chilton.....	4.7 miles SSE. of Jemison, Chilton County.....	1.0	1.0			0.2
	1920	32 57 26	86 43 21	Chilton.....	2.0 miles E. by S. of Jemison, Chilton County.....	3.9	3.8			0.8
ARIZONA.....	1880	33 17 36	111 25 32	Pinal.....	18.7 miles N. by W. of Florence, Pinal County.....					
	1890	33 15 51	111 25 39	Pinal.....	16.6 miles N. by W. of Florence, Pinal County.....	2.0		2.0		0.1
	1900	33 34 20	111 15 58	Maricopa.....	9.2 miles SW. of Roosevelt Dam, Maricopa County.....	23.2	21.2		9.3	
	1910	33 24 18	110 59 38	Gila.....	12.3 miles W. by N. of Globe, Gila County.....	19.5		11.5	15.7	
	1920	33 21 3	111 12 55	Pinal.....	23.0 miles NNE. of Florence, Pinal County.....	13.3		3.7		12.8
ARKANSAS.....	1880	34 55 41	92 30 25	Pulaski.....	4.8 miles WSW. of Mayflower, Faulkner County.....					
	1890	34 57 35	92 29 41	Faulkner.....	3.9 miles WNW. of Mayflower, Faulkner County.....	2.3	2.2		0.7	
	1900	34 56 18	92 28 27	Pulaski.....	3.2 miles WSW. of Mayflower, Faulkner County.....	1.9		1.5	1.2	
	1910	34 55 16	92 25 8	Faulkner.....	3.0 miles SSW. of Mayflower, Faulkner County.....	3.3		1.2	3.1	
	1920	34 55 14	92 20 48	Pulaski.....	9.0 miles NNW. of Levy, Pulaski County.....	4.1		0.04	4.1	
CALIFORNIA.....	1880	37 55 55	121 27 42	San Joaquin.....	3.3 miles E. by S. of Moorland, San Joaquin County.....					
	1890	37 25 35	121 2 20	Stanislaus.....	3.1 miles NNE. of Crows Landing, Stanislaus County.....	41.9		34.9	23.1	
	1900	37 14 26	120 53 11	Merced.....	6.2 miles NE. of Ingomar, Merced County.....	15.3		12.8	8.4	
	1910	36 42 29	120 31 23	Fresno.....	9.5 miles WSW. of Mendota, Fresno County.....	41.8		38.7	20.1	
	1920	36 20 23	120 10 54	Fresno.....	36.2 miles SSW. of Fresno, Fresno County.....	31.7		25.4	19.0	
COLORADO.....	1880	39 5 23	105 32 53	Park.....	13.7 miles ENE. of Hartzell, Park County.....					
	1890	39 9 52	105 14 10	Douglas.....	3.8 miles WNW. of West Creek, Douglas County.....	17.6	5.2		16.8	
	1900	39 5 45	105 16 5	Teller.....	6.4 miles WSW. of West Creek, Douglas County.....	5.0		4.7		1.7
	1910	39 11 53	105 11 28	Douglas.....	3.6 miles N. by W. of West Creek, Douglas County.....	8.2	7.1		4.1	
	1920	39 14 53	105 1 24	Douglas.....	13.0 miles SW. by S. of Castle Rock, Douglas County.....	9.6	3.4		9.0	
CONNECTICUT.....	1880	41 32 49	72 46 21	New Haven.....	2.0 miles ENE. of Meriden post office, New Haven County.....					
	1890	41 31 41	72 48 0	New Haven.....	0.8 mile SSE. of Meriden post office, New Haven County.....	1.9		1.3		1.4
	1900	41 31 23	72 49 6	New Haven.....	1.2 miles SSW. of Meriden post office, New Haven County.....	1.0		0.3		1.0
	1910	41 30 54	72 50 20	New Haven.....	2.5 miles SW. of Meriden post office, New Haven County.....	1.3		0.6		1.1
	1920	41 30 8	72 51 47	New Haven.....	3.1 miles SSW. of Meriden post office, New Haven County.....	1.6		0.9		1.3
DELAWARE.....	1880	39 9 50	75 35 30	Kent.....	3.5 miles W. by N. of Dover, Kent County.....					
	1890	39 11 9	75 35 36	Kent.....	4.0 miles NW. of Dover, Kent County.....	1.5	1.5			0.1
	1900	39 11 35	75 35 9	Kent.....	4.0 miles NW. by N. of Dover, Kent County.....	0.6	0.5		0.4	
	1910	39 11 49	75 35 6	Kent.....	4.2 miles NW. by N. of Dover, Kent County.....	0.3	0.3			0.4
	1920	39 25 14	75 32 9	New Castle.....	8.4 miles E. by N. of Townsend, New Castle County.....	15.6	15.4		2.6	
DISTRICT OF COLUMBIA.....	1900	78 ft. N. of H. St. NW.	20 ft. W. of 4th St. NW.		Opposite No. 801 Fourth Street NW.....					
	1910	159 ft. S. of K St. NW.	111 ft. E. of 5th St. NW.		No. 927 Fifth Street NW.....	1 983	1 743			1 643
	1920	222 ft. N. of M St. NW.	57 ft. E. of 5th St. NW.		Central Methodist Episcopal Church, 1215-1217 5th Street NW.....	1 521	1 520			1 54
FLORIDA.....	1880	29 43 40	83 17 0	Lafayette.....	1.0 mile SW. of Hines, Lafayette County.....					
	1890	29 29 15	83 3 28	Lafayette.....	7.0 miles N. by W. of Vista, Levy County.....	21.4		16.6	13.5	
	1900	29 28 40	83 7 19	Lafayette.....	7.7 miles NW. by N. of Vista, Levy County.....	3.9		0.7		3.8
	1910	29 19 30	83 0 32	Levy.....	5.0 miles SSE. of Vista, Levy County.....	12.5		10.5	6.8	
	1920	29 4 36	82 46 42	Levy.....	8.8 miles W. by S. of Lebanon, Levy County.....	22.0		17.1	13.9	
GEORGIA.....	1880	33 2 4	83 42 0	Jones.....	10.2 miles WNW. of Gray, Jones County.....					
	1890	33 0 0	83 40 17	Jones.....	8.3 miles W. of Gray, Jones County.....	2.9		2.4	1.7	
	1900	32 56 38	83 38 24	Jones.....	7.3 miles N. by W. of Macon, Bibb County.....	4.3		3.9	1.8	
	1910	32 54 25	83 37 8	Jones.....	4.5 miles N. by E. of Macon, Bibb County.....	2.8		2.5	1.2	
	1920	32 54 17	83 36 32	Jones.....	7.9 miles SW. by S. of Gray, Jones County.....	0.6		0.2	0.6	
IDAHO.....	1880	43 59 34	114 24 4	Custer.....	19.5 miles E. by S. of Pierson, Custer County.....					
	1890	44 12 41	114 27 33	Custer.....	4.8 miles S. by W. of Clayton, Custer County.....	15.4	15.1			2.9
	1900	44 36 14	114 37 19	Lemhi.....	13.0 miles S. by E. of Meyers Cove, Lemhi County.....	28.3	27.1			8.1
	1910	44 30 50	114 47 38	Custer.....	6.6 miles NE. of Sunbeam, Custer County.....	10.5		6.2		8.5
	1920	44 14 12	114 35 17	Custer.....	27.4 miles SW. by S. of Challis, Custer County.....	21.7		19.1	10.2	

1 Feet.

CENTER OF POPULATION.

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CENTERS OF POPULATION OF EACH STATE: 1880 TO 1920—Continued.

STATE.	Census year.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.		MOVEMENT IN MILES DURING PRECEDING DECADE.				
				County.	Nearest city or town.	From point to point in direct line.	Northward.	Southward.	Eastward.	Westward.
ILLINOIS.....	1880	40 26 47	88 57 44	McLean.....	2.8 miles SE. of Bloomington, McLean County.					
	1890	40 39 14	88 44 34	McLean.....	2.0 miles E. by N. of Lexington, McLean County.	18.4	14.3		11.6	
	1900	40 46 48	88 37 12	Livingston.....	1.5 miles N. by E. of Weston, McLean County.	10.8	8.7		6.4	
	1910	40 51 29	88 33 18	Livingston.....	4.0 miles SE. of Pontiac, Livingston County.	6.4	5.4		3.4	
	1920	40 56 45	88 29 1	Livingston.....	8.0 miles NE. by E. of Pontiac, Livingston County.	7.1	6.1		3.7	
INDIANA.....	1880	39 51 33	86 13 26	Marion.....	2.0 miles SE. of New Augusta, Marion County.					
	1890	39 52 53	86 14 16	Marion.....	0.5 mile N. of New Augusta, Marion County.	1.7	1.5			0.7
	1900	39 54 36	86 14 3	Marion.....	2.0 miles N. by E. of New Augusta, Marion County.	2.0	2.0		0.2	
	1910	39 56 49	86 15 47	Boone.....	0.3 mile W. by N. of Zionsville, Boone County.	2.9	2.5			1.5
	1920	40 0 14	86 17 16	Boone.....	4.4 miles NNW. of Zionsville, Boone County.	4.3	3.9			1.7
IOWA.....	1880	41 51 40	92 56 53	Marshall.....	1.8 miles SW. of Laurel, Marshall County.					
	1890	41 56 2	92 58 43	Marshall.....	2.9 miles NW. of Laurel, Marshall County.	5.2	5.0			1.6
	1900	41 55 45	93 15 11	Story.....	2.6 miles NE. by E. of Collins, Story County.	14.1		0.3		14.1
	1910	41 57 43	93 15 18	Story.....	4.8 miles SE. of Colo, Story County.	2.3	2.3			0.1
	1920	41 58 45	93 17 43	Story.....	2.8 miles S. by E. of Colo, Story County.	2.4	1.2			2.1
KANSAS.....	1880	38 36 11	96 41 7	Morris.....	3.3 miles SSW. of Wilsey, Morris County.					
	1890	38 33 1	97 8 0	Marion.....	1.7 miles E. of Tampa, Marion County.	24.6		3.6		24.3
	1900	38 32 25	96 43 21	Morris.....	7.2 miles SSW. of Wilsey, Morris County.	22.3		0.7	22.3	
	1910	38 29 31	96 40 41	Marion.....	7.0 miles E. by S. of Lincolnville, Marion County.	6.6		3.3		5.7
	1920	38 27 33	96 50 9	Marion.....	7.3 miles SE. by E. of Lincolnville, Marion County.	2.3		2.3		0.4
KENTUCKY.....	1880	37 42 40	85 26 30	Nelson.....	1.7 miles N. by W. of Holycross, Marion County.					
	1890	37 42 46	85 21 52	Washington.....	1.0 mile E. of Blincoe, Washington County.	4.2	0.1		4.2	
	1900	37 42 15	85 24 40	Washington.....	2.0 miles ENE. of Holycross, Marion County.	2.7		0.6		2.6
	1910	37 42 29	85 21 29	Washington.....	1.4 miles E. by S. of Blincoe, Washington County.	3.0	0.3		2.9	
	1920	37 42 21	85 15 24	Washington.....	2.5 miles NW. by W. of Springfield, Washington County.	5.6		0.2	5.6	
LOUISIANA.....	1880	30 49 29	91 21 8	West Feliciana ¹	4.3 miles NNE. of Bayou Sara, West Feliciana Parish.					
	1890	30 50 40	91 29 24	West Feliciana ¹	4.0 miles SSE. of Brandon, West Feliciana Parish.	8.3	1.4			8.2
	1900	30 48 56	91 31 46	Pointe Coupee ¹	2.4 miles NE. of Raccaord, Pointe Coupee Parish.	3.0		2.0		2.3
	1910	30 48 47	91 33 50	Pointe Coupee ¹	1.0 mile N. by E. of Raccaord, Pointe Coupee Parish.	2.0		0.2		2.0
	1920	30 51 23	91 36 40	Pointe Coupee ¹	4.9 miles NNW. of Raccaord, Pointe Coupee Parish.	4.2	3.1			2.8
MAINE.....	1880	44 55 10	69 32 46	Somerset.....	4.8 miles ESE. of Athens post office, Somerset County.					
	1890	44 57 3	69 32 36	Somerset.....	4.7 miles E. of Athens post office, Somerset County.	2.2	2.2		0.1	
	1900	44 57 52	69 33 5	Somerset.....	4.3 miles ENE. of Athens post office, Somerset County.	1.0	0.9			0.4
	1910	44 47 2	69 29 49	Somerset.....	2.3 miles E. by S. of Canaan post office, Somerset County.	12.8		12.5	2.7	
	1920	44 46 44	69 31 2	Somerset.....	1.3 miles SE. of Canaan post office, Somerset County.	1.0		0.3		1.0
MARYLAND.....	1880	39 9 4	76 41 17	Anne Arundel.....	0.8 mile SE. of Harmans, Anne Arundel County.					
	1890	39 9 32	76 41 21	Anne Arundel.....	0.5 mile E. of Harmans, Anne Arundel County.	0.5	0.5			0.1
	1900	39 9 36	76 42 15	Anne Arundel.....	0.4 mile W. by N. of Harmans, Anne Arundel County.	0.8	0.1			0.8
	1910	39 10 1	76 42 36	Anne Arundel.....	0.9 mile NW. of Harmans, Anne Arundel County.	0.6	0.5			0.3
	1920	39 11 3	76 43 40	Anne Arundel.....	2.9 miles NNW. of Harmans, Anne Arundel County.	1.6	1.2			1.0
MASSACHUSETTS.....	1880	42 22 30	71 28 15	Middlesex.....	3.0 miles W. by S. of Sudbury post office, Middlesex County.					
	1890	42 22 30	71 28 10	Middlesex.....	2.9 miles W. by S. of Sudbury post office, Middlesex County.	0.1			0.1	
	1900	42 22 19	71 28 8	Middlesex.....	2.9 miles WSW. of Sudbury post office, Middlesex County.	0.2		0.2	0.03	
	1910	42 22 23	71 25 8	Middlesex.....	0.5 mile SSW. of Sudbury post office, Middlesex County.	2.6	0.1		2.6	
	1920	42 22 18	71 25 45	Middlesex.....	0.8 mile SSW. of Sudbury post office, Middlesex County.	0.5		0.1		0.5
MICHIGAN.....	1880	43 3 29	84 38 36	Clinton.....	5.8 miles NNW. of St. Johns, Clinton County.					
	1890	43 15 24	84 43 38	Gratiot.....	5.5 miles N. by W. of Middleton, Gratiot County.	14.3	13.7			4.2
	1900	43 21 0	84 46 19	Gratiot.....	9.2 miles WNW. of Ithaca, Gratiot County.	6.8	6.4			2.2
	1910	43 19 55	84 45 0	Gratiot.....	7.7 miles WNW. of Ithaca, Gratiot County.	1.6		1.2	1.1	
	1920	43 6 17	84 24 59	Clinton.....	10.4 miles NE. of St. Johns, Clinton County.	23.1		15.7	16.9	
MINNESOTA.....	1880	44 47 33	93 44 41	Carver.....	1.6 miles E. by S. of Young America, Carver County.					
	1890	45 5 42	93 50 36	Wright.....	3.6 miles ENE. of Montrose, Wright County.	21.4	20.9			4.8
	1900	45 15 29	93 59 24	Wright.....	2.2 miles N. by E. of Maple Lake, Wright County.	13.3	11.2			7.2
	1910	45 22 23	93 51 29	Sherburne.....	1.9 miles SE. of Becker, Sherburne County.	10.2	7.9		6.4	
	1920	45 25 26	93 51 1	Sherburne.....	2.8 miles NNE. of Becker, Sherburne County.	3.5	3.5		0.4	
MISSISSIPPI.....	1880	33 2 50	89 42 6	Attala.....	4.0 miles ENE. of Sallis, Attala County.					
	1890	35 59 52	89 43 26	Attala.....	3.5 miles SE. of Sallis, Attala County.	3.6		3.4		1.3
	1900	32 55 37	89 44 46	Attala.....	7.0 miles SE. by S. of Sallis, Attala County.	5.1		4.9		1.3
	1910	32 54 7	89 45 22	Attala.....	8.5 miles S. by E. of Sallis, Attala County.	1.8		1.7		0.6
	1920	32 55 35	89 45 37	Attala.....	7.0 miles S. by E. of Sallis, Attala County.	1.7	1.7			0.2
MISSOURI.....	1880	38 42 32	92 25 8	Moniteau.....	2.6 miles NW. of Marion, Cole County.					
	1890	38 38 19	92 27 57	Moniteau.....	2.9 miles NW. of Centertown, Cole County.	5.4		4.8		2.5
	1900	38 36 11	92 25 55	Cole.....	0.6 mile SW. of Centertown, Cole County.	3.1		2.5	1.8	
	1910	38 33 0	92 18 25	Cole.....	6.5 miles WSW. of Jefferson City, Cole County.	7.7		3.7	6.8	
	1920	38 33 17	92 16 23	Cole.....	4.0 miles SW. by W. of Jefferson City, Cole County.	1.8	0.3		1.8	
MONTANA.....	1880	46 23 5	111 43 16	Broadwater.....	19.7 miles SE. of Helena, Lewis and Clark County.					
	1890	46 31 45	111 51 22	Jefferson.....	9.3 miles ESE. of Helena, Lewis and Clark County.	11.9	10.0			6.4
	1900	46 34 45	111 36 18	Broadwater.....	19.7 miles E. by N. of Helena, Lewis and Clark County.	12.5	3.4		12.0	
	1910	46 41 31	110 59 49	Meagher.....	9.8 miles NNW. of White Sulphur Springs, Meagher County.	30.0	7.8		29.0	
	1920	46 52 36	110 14 2	Judith Basin.....	9.7 miles SW. of Utica, Judith Basin County.	33.3	12.8		36.1	

¹ Parish.

FOURTEENTH CENSUS: 1920.

CENTERS OF POPULATION OF EACH STATE: 1880 TO 1920—Continued.

STATE.	Census year.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.		MOVEMENT IN MILES DURING PRECEDING DECADE.						
		North latitude.	West longitude.	County.	Nearest city or town.	From point to point in direct line.	Northward.	Southward.	Eastward.	Westward.
NEBRASKA.....	1880	40 57 47	97 20 43	Seward.....	4.7 miles N. by E. of Utica, Seward County.....	22.0	9.3			19.9
	1890	41 5 54	97 43 34	Polk.....	3.5 miles ENE. of Polk, Polk County.....	3.4	3.2		1.2	
	1900	41 8 43	97 42 10	Polk.....	6.2 miles WNW. of Stromburg, Polk County.....	7.7	2.9			7.1
	1910	41 11 13	97 50 17	Merrick.....	1.7 miles S. of Clarks, Merrick County.....		1.5			5.8
	1920	41 12 32	97 57 0	Merrick.....	5.8 miles W. by S. of Clarks, Merrick County.....	6.0				
NEVADA.....	1880	39 41 41	117 59 22	Churchill.....	2.5 miles SSE. of Boyer, Churchill County.....	11.4		11.2		2.1
	1890	39 31 55	118 1 46	Churchill.....	13.8 miles S. by W. of Boyer, Churchill County.....	25.1	22.6		11.0	
	1900	39 51 36	117 49 23	Churchill.....	13.3 miles NE. of Boyer, Churchill County.....	42.4		40.0	14.2	
	1910	39 16 48	117 33 18	Lander.....	20.3 miles SE. of Alpine, Churchill County.....	4.8	4.5		1.7	
	1920	39 20 41	117 31 23	Lander.....	26.2 miles WSW. of Austin, Lander County.....					
NEW HAMPSHIRE.....	1880	43 26 25	71 35 50	Belknap.....	0.2 mile W. by S. of Tilton, Belknap County.....	0.6		0.5	0.4	
	1890	43 26 1	71 35 23	Merrimack.....	0.6 mile S. by E. of Tilton, Belknap County.....	0.5			0.5	
	1900	43 26 1	71 34 44	Merrimack.....	0.9 mile SE. of Tilton, Belknap County.....	5.8		5.4	2.1	
	1910	43 21 18	71 32 10	Merrimack.....	2.2 miles NE. of Canterbury post office, Merrimack County.....					
	1920	43 21 30	71 32 17	Merrimack.....	2.4 miles NE. by N. of Canterbury post office, Merrimack County.....	0.2	0.2			0.1
NEW JERSEY.....	1880	40 25 48	74 31 1	Middlesex.....	5.5 miles SW. of New Brunswick, Middlesex County.....	13.2	13.2		0.7	
	1890	40 37 19	74 30 14	Somerset.....	2.8 miles NW. of Dunellen, Middlesex County.....	10.8		10.8	0.5	
	1900	40 27 54	74 29 37	Middlesex.....	3.0 miles SW. by W. of New Brunswick, Middlesex County.....					
	1910	40 29 24	74 26 20	Middlesex.....	First ward of New Brunswick, Middlesex County.....	3.4	1.7		2.9	
	1920	40 28 19	74 24 34	Middlesex.....	2.2 miles SE. of New Brunswick, Middlesex County.....	2.0		1.2	1.6	
NEW MEXICO.....	1880	35 9 35	106 10 35	Santa Fe.....	5.0 miles SE. of San Pedro, Santa Fe County.....	13.1		13.0	1.5	
	1890	34 58 19	106 9 1	Torrance.....	6.4 miles W. by S. of Moriarty, Torrance County.....	3.8		3.8		0.6
	1900	34 55 0	106 9 41	Bernalillo.....	7.5 miles WSW. of Moriarty, Torrance County.....	26.0		6.8	25.1	
	1910	34 49 5	105 43 8	Torrance.....	19.5 miles ENE. of Estancia, Torrance County.....	12.6		5.2		11.5
	1920	34 44 34	105 55 13	Torrance.....	8.0 miles E. by S. of Estancia, Torrance County.....					
NEW YORK.....	1880	42 0 4	74 54 50	Delaware.....	3.0 miles NW. by W. of Craigeclare, Sullivan County.....	6.5		6.0	2.5	
	1890	41 54 51	74 51 56	Sullivan.....	1.8 miles W. by N. of Livingston Manor, Sullivan County.....					
	1900	41 48 0	74 45 51	Sullivan.....	1.2 miles SW. of Liberty, Sullivan County.....	9.5		7.9	5.2	
	1910	41 39 29	74 51 50	Sullivan.....	0.7 mile NW. by W. of Forestine, Sullivan County.....	11.0		9.8		5.1
	1920	41 36 13	74 50 59	Sullivan.....	3.8 miles S. by W. of Forestine, Sullivan County.....	3.9		3.8	0.7	
NORTH CAROLINA.....	1880	35 38 35	79 18 37	Chatham.....	2.2 miles NNW. of Goldston, Chatham County.....	6.2		0.2		6.2
	1890	35 38 22	79 25 11	Chatham.....	2.5 miles S. of Mount Vernon Springs, Chatham County.....					
	1900	35 38 13	79 28 37	Chatham.....	4.2 miles SW. of Mount Vernon Springs, Chatham County.....	3.2		0.2		3.2
	1910	35 37 23	79 29 49	Chatham.....	3.3 miles ENE. of Cheeks, Randolph County.....	1.5		1.0		1.1
	1920	35 36 48	79 31 27	Chatham.....	3.0 miles SW. by S. of Mount Vernon Springs, Chatham County.....	1.7		0.7		1.5
NORTH DAKOTA.....	1880	47 2 3	98 9 37	Barnes.....	2.0 miles SW. of Matteson, Barnes County.....					
	1890	47 28 35	98 20 25	Griggs.....	7.2 miles SW. of Essie, Griggs County.....	31.6	30.5			8.4
	1900	47 31 40	98 42 27	Foster.....	6.6 miles SW. of McHenry, Foster County.....	17.6	3.5			17.2
	1910	47 30 32	99 39 47	Wells.....	3.5 miles NE. of Bowdon, Wells County.....	44.7		1.3		44.7
	1920	47 28 43	99 46 27	Wells.....	2.5 miles WNW. of Bowdon, Wells County.....	5.0		2.1		5.2
OHIO.....	1880	40 20 17	82 53 48	Delaware.....	3.7 miles E. by N. of Kilbourne, Delaware County.....					
	1890	40 22 59	82 53 56	Morrow.....	4.9 miles WSW. of Marengo, Morrow County.....	3.1	3.1			0.1
	1900	40 24 12	82 54 45	Morrow.....	5.4 miles W. of Marengo, Morrow County.....	1.6	1.4			0.7
	1910	40 28 48	82 48 25	Morrow.....	1.5 miles E. by N. of Fulton, Morrow County.....	7.7	5.3		5.6	
	1920	40 33 11	82 41 36	Morrow.....	7.6 miles E. of Mount Gilead, Morrow County.....	7.8	5.0		6.0	
OKLAHOMA.....	1890	35 18 58	96 28 1	Seminole.....	5.0 miles WSW. of Bearden, Okfuskee County.....					
	1900	35 30 25	96 57 32	Lincoln.....	3.3 miles W. of Meeker, Lincoln County.....	30.7	13.2			27.7
	1910	35 28 19	97 5 28	Lincoln.....	3.0 miles NNE. of McLoud, Pottawatomie County.....	7.9		2.4		7.5
	1920	35 28 33	96 52 48	Lincoln.....	2.0 miles SSE. of Meeker, Lincoln County.....	11.9	0.3		11.9	
OREGON.....	1880	44 39 37	122 18 0	Linn.....	9.1 miles WSW. of Detroit, Marion County.....					
	1890	44 46 13	122 0 9	Marion.....	7.8 miles ENE. of Detroit, Marion County.....	16.5	7.6		14.7	
	1900	44 55 58	121 56 0	Clackamas.....	18.0 miles NE. by N. of Detroit, Marion County.....	11.7	11.2		3.4	
	1910	44 52 12	122 12 4	Marion.....	10.8 miles NNW. of Detroit, Marion County.....	13.9		4.3		13.2
	1920	44 55 41	122 13 33	Clackamas.....	24.6 miles SE. of Marquam, Clackamas County.....	4.2	4.0			1.2
PENNSYLVANIA.....	1880	40 35 18	77 10 2	Juniata.....	11.6 miles E. by N. of Mifflintown, Juniata County.....					
	1890	40 35 14	77 12 30	Juniata.....	9.5 miles E. by N. of Mifflintown, Juniata County.....	2.2		0.1		2.2
	1900	40 35 50	77 15 5	Juniata.....	7.4 miles ENE. of Mifflintown, Juniata County.....	2.4	0.7			2.3
	1910	40 32 54	77 17 50	Juniata.....	5.5 miles SE. by E. of Mifflintown, Juniata County.....	4.2		3.4		2.4
	1920	40 32 5	77 18 30	Juniata.....	5.2 miles SE. of Mifflintown, Juniata County.....	1.1		0.9		0.6
RHODE ISLAND.....	1880	41 46 14	71 27 40	Providence.....	4.1 miles SW. by S. of Providence post office, Providence County.....					
	1890	41 46 46	71 27 49	Providence.....	3.7 miles SW. of Providence post office, Providence County.....	0.6	0.6			0.1
	1900	41 47 5	71 27 42	Providence.....	3.4 miles SW. of Providence post office, Providence County.....	0.4	0.4		0.1	
	1910	41 47 24	71 27 40	Providence.....	3.1 miles SW. by W. of Providence post office, Providence County.....	0.4	0.4		0.02	
	1920	41 47 43	71 26 27	Providence.....	2.3 miles SW. of Providence post office, Providence County.....	1.2	0.4		1.1	
SOUTH CAROLINA.....	1880	33 58 47	80 58 46	Richland.....	3.4 miles SE. by E. of Columbia, Richland County.....					
	1890	33 59 12	80 58 50	Richland.....	3.2 miles ESE. of Columbia, Richland County.....	0.5	0.5			0.1
	1900	34 0 18	80 59 49	Richland.....	1.3 miles E. by N. of Columbia, Richland County.....	1.6	1.3			0.9
	1910	34 2 2	81 4 1	Richland.....	3.3 miles NW. of Columbia, Richland County.....	4.5	2.0			4.0
	1920	34 2 35	81 3 42	Richland.....	4.0 miles NW. of Columbia, Richland County.....	0.7	0.6		0.3	

CENTER OF POPULATION.

17

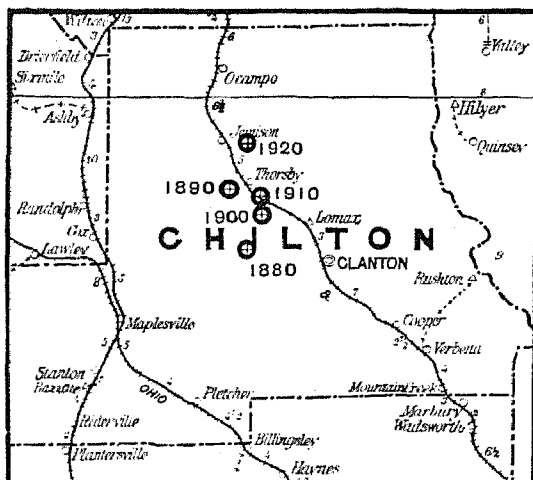
CENTERS OF POPULATION OF EACH STATE: 1880 TO 1920—Continued.

STATE.	Census year.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.		MOVEMENT IN MILES DURING PRECEDING DECADE.				
				County.	Nearest city or town.	From point to point in direct line.	Northward.	Southward.	Eastward.	Westward.
SOUTH DAKOTA.	1880	43 59 28	98 18 4	Sanborn	5.0 miles SSW. of Woonsocket, Sanborn County					
	1890	44 16 52	98 24 26	Beadle	1.5 miles S. by E. of Virgil, Beadle County	20.7	20.0			5.3
	1900	44 21 20	98 25 9	Beadle	10.0 miles W. by S. of Huron, Beadle County	5.1	5.1			0.6
	1910	44 19 48	98 50 6	Hand	8.0 miles N. of Danforth, Hand County	20.6		1.8		20.5
	1920	44 19 25	98 40 39	Beadle	13.6 miles NW. by W. of Virgil, Beadle County	7.8		0.4	7.8	
TENNESSEE.	1880	35 50 9	86 38 37	Williamson	4.6 miles SE. of Arrington, Williamson County	2.5		0.03	2.5	
	1890	35 50 7	86 35 58	Rutherford	5.4 miles NW. by N. of Rockvale, Rutherford County	0.3		0.02		0.3
	1900	35 50 6	86 36 19	Rutherford	5.6 miles NW. of Rockvale, Rutherford County	2.6		1.0	2.4	
	1910	35 49 16	86 33 47	Rutherford	4.5 miles W. of Overall, Rutherford County	1.7		0.4	1.7	
	1920	35 48 53	86 32 1	Rutherford	8.4 miles SW. by W. of Murfreesboro, Rutherford County					
TEXAS.	1880	31 20 50	96 38 30	Limestone	6.4 miles SW. of Thornton, Limestone County	13.7	6.2			12.2
	1890	31 26 11	96 50 52	Falls	3.0 miles WSW. of Otto, Falls County	3.2	2.8			1.5
	1900	31 28 35	96 52 26	Falls	4.5 miles NNW. of Otto, Falls County	22.6	3.2			22.4
	1910	31 31 23	97 15 14	McLennan	7.0 miles WSW. of Waco, McLennan County	5.0		3.2		3.9
	1920	31 28 34	97 19 12	McLennan	12.1 miles SW. of Waco, McLennan County					
UTAH.	1880	40 13 56	111 54 30	Utah	26.6 miles W. by S. of Provo, Utah County	8.9	5.7		6.8	
	1890	40 18 53	111 46 47	Utah	4.6 miles SSE. of American Fork, Utah County	3.5		3.3	1.1	
	1900	40 16 2	111 45 29	Utah	4.7 miles NNW. of Provo, Utah County	8.3	8.1			2.0
	1910	40 23 6	111 47 46	Utah	1.4 miles ENE. of American Fork, Utah County	1.1		0.9	0.6	
	1920	40 22 19	111 47 4	Utah	1.5 miles SE. of American Fork, Utah County					
VERMONT.	1880	44 1 45	72 43 5	Washington	3.8 miles S. by E. of Roxbury post office, Washington County	1.0	1.0		0.2	
	1890	44 2 38	72 42 48	Washington	3.0 miles SE. by S. of Roxbury post office, Washington County	3.2	0.8		3.1	
	1900	44 3 18	72 39 1	Orange	2.0 miles NW. of Brookfield post office, Orange County	4.9		0.3		4.9
	1910	44 3 0	72 44 56	Washington	2.6 miles S. by W. of Roxbury post office, Washington County	0.3		0.3		0.1
	1920	44 2 46	72 45 3	Washington	2.9 miles SSW. of Roxbury post office, Washington County					
VIRGINIA.	1880	37 29 34	78 29 51	Buckingham	3.2 miles NNE. of Arcanum, Buckingham County	3.5		1.2		3.3
	1890	37 28 31	78 33 29	Buckingham	2.9 miles NW. of Arcanum, Buckingham County	2.5		2.5	0.5	
	1900	37 26 19	78 32 54	Buckingham	1.9 miles W. by S. of Arcanum, Buckingham County	1.7		1.4		1.0
	1910	37 25 5	78 33 58	Buckingham	3.5 miles SW. of Arcanum, Buckingham County	3.7		1.7	3.3	
	1920	37 23 38	78 30 23	Buckingham	3.8 miles S. by E. of Arcanum, Buckingham County					
WASHINGTON.	1880	47 5 32	120 36 29	Kittitas	4.3 miles ENE. of Thorp, Kittitas County	17.2	11.7			12.6
	1890	47 15 44	120 52 30	Kittitas	5.8 miles ENE. of Roslyn, Kittitas County	6.6	4.7		4.6	
	1900	47 19 50	120 46 35	Kittitas	7.8 miles NW. of Liberty, Kittitas County	12.0	3.8			11.4
	1910	47 23 6	121 4 16	Kittitas	12.7 miles NNW. of Roslyn, Kittitas County	8.0	1.1			7.9
	1920	47 24 5	121 14 24	Kittitas	17.2 miles NW. by N. of Roslyn, Kittitas County					
WEST VIRGINIA.	1880	38 53 20	80 37 47	Braxton	2.5 miles NNE. of Burnsville, Braxton County	5.1		3.9		3.3
	1890	38 49 59	80 41 26	Braxton	2.7 miles SW. of Burnsville, Braxton County	3.3		2.1		2.6
	1900	38 48 7	80 44 22	Braxton	1.4 miles W. by S. of Delta or Braxton post office, Braxton County	5.2		3.0		4.3
	1910	38 45 32	80 49 12	Braxton	1.8 miles NW. of Chapel, Braxton County	4.7		3.4		3.3
	1920	38 42 36	80 52 55	Braxton	4.5 miles NW. of Gassaway, Braxton County					
WISCONSIN.	1880	43 44 57	89 17 6	Marquette	3.8 miles SE. of Montello, Marquette County	9.9	9.8			1.1
	1890	43 53 27	89 18 22	Marquette	2.3 miles W. of Germania, Marquette County	4.6	4.6			0.3
	1900	43 57 29	89 18 43	Marquette	5.1 miles W. by S. of Neshkoro, Marquette County	3.9		0.7	3.8	
	1910	43 56 53	89 14 10	Marquette	2.2 miles SW. of Neshkoro, Marquette County	1.8		1.4	1.2	
	1920	43 55 42	89 12 46	Marquette	2.6 miles S. of Neshkoro, Marquette County					
WYOMING.	1880	42 10 48	106 39 14	Carbon	4.7 miles S. by E. of Leo, Carbon County	16.3	16.1		2.4	
	1890	42 24 46	106 36 27	Carbon	12.3 miles NNW. of Shirley, Carbon County	16.3	8.6			13.8
	1900	42 32 14	106 52 39	Natrona	7.8 miles W. by S. of Alcova, Natrona County	12.9	11.2			6.4
	1910	42 42 0	107 0 7	Natrona	6.8 miles SE. of Oilcity, Natrona County	9.2	8.0		4.6	
	1920	42 48 58	106 54 38	Natrona	10.3 miles NE. by E. of Oilcity, Natrona County					

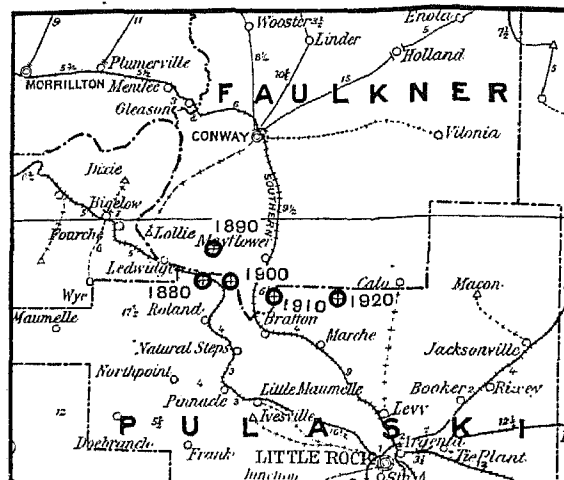
FOURTEENTH CENSUS: 1920.

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

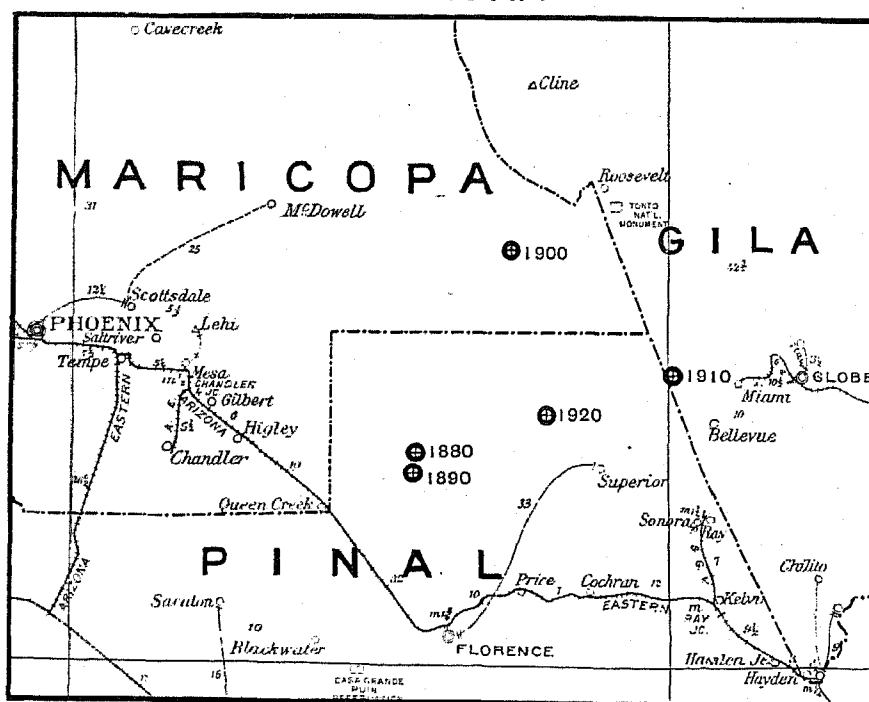
ALABAMA



ARKANSAS

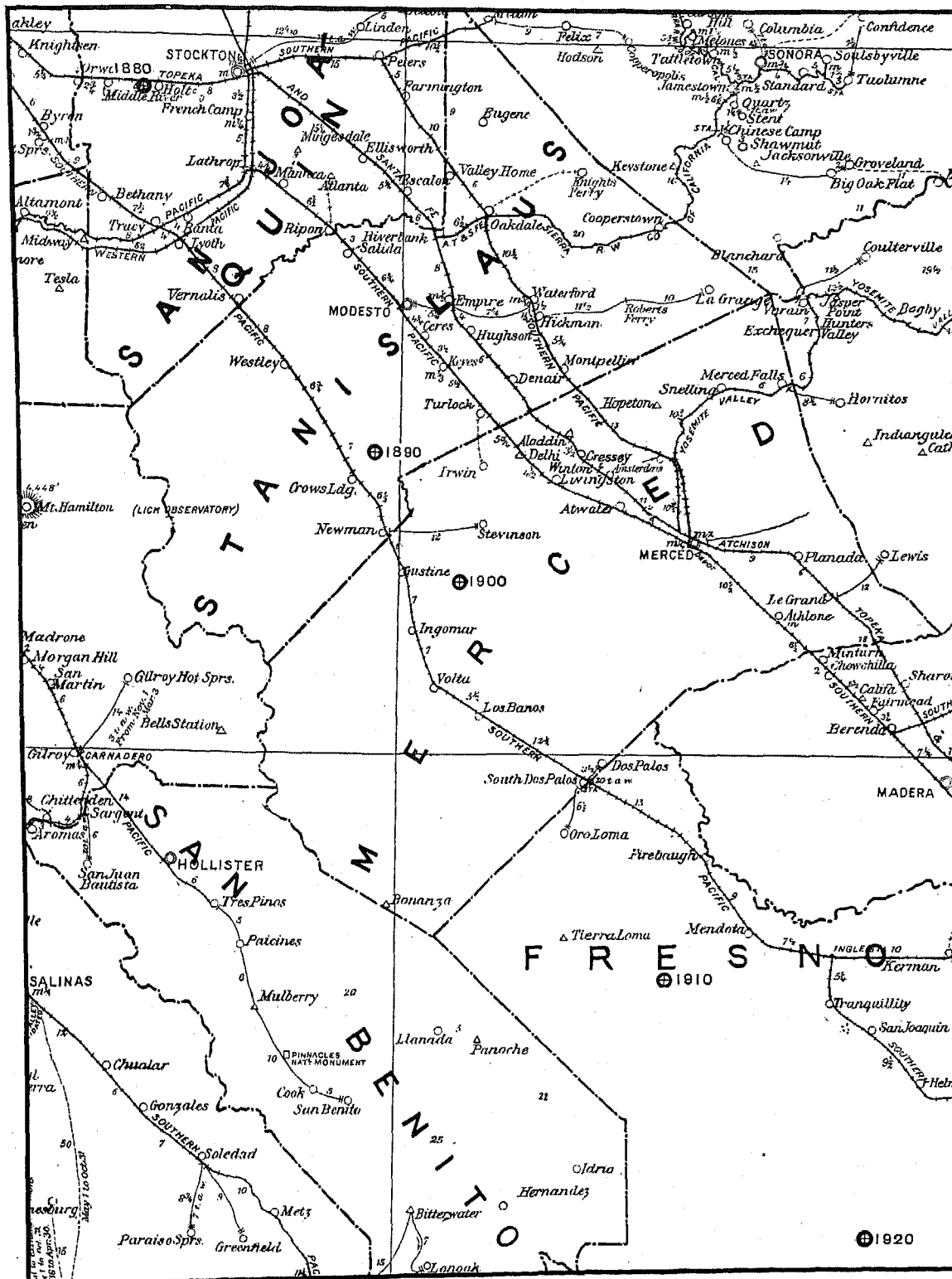


ARIZONA



CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

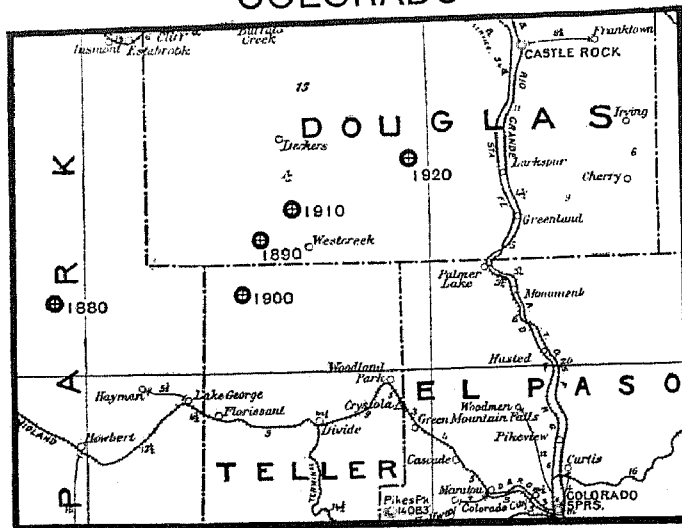
CALIFORNIA



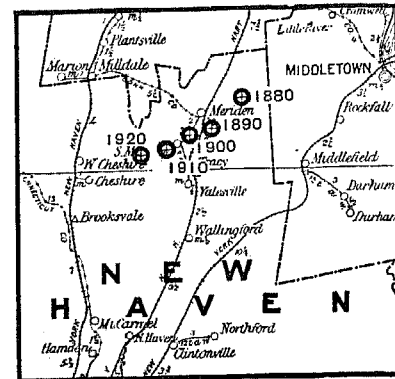
FOURTEENTH CENSUS: 1920.

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

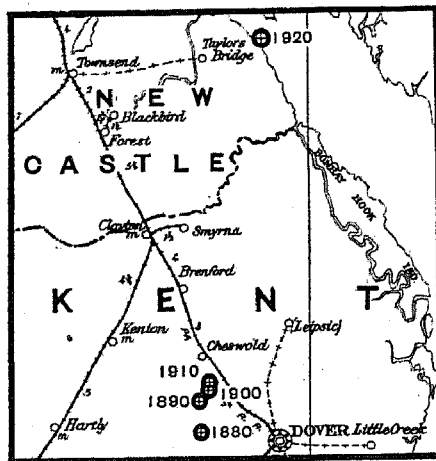
COLORADO



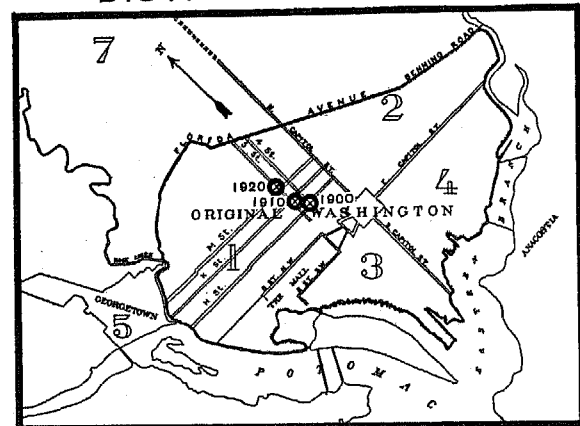
CONNECTICUT



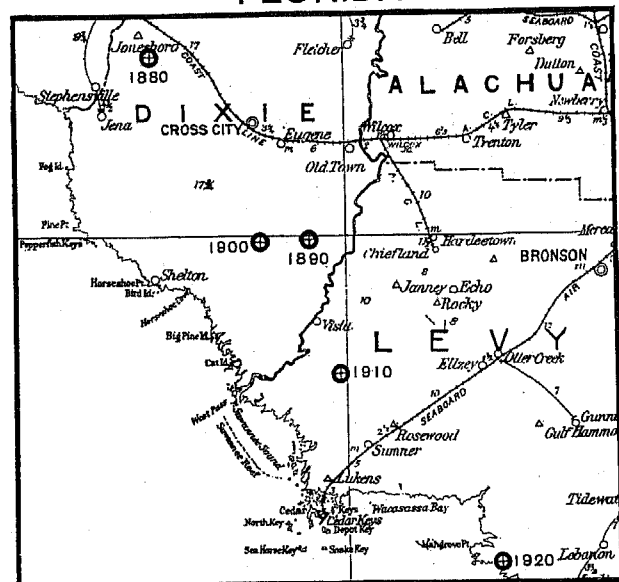
DELAWARE



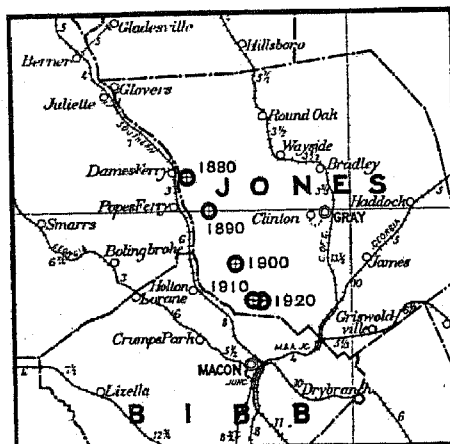
DIST. OF COLUMBIA



FLORIDA



GEORGIA

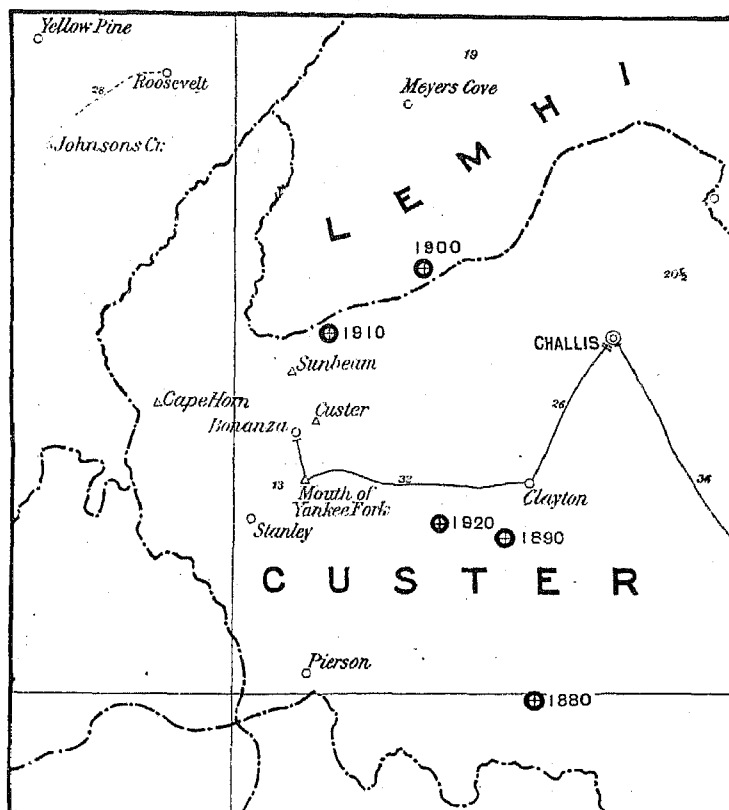


CENTER OF POPULATION.

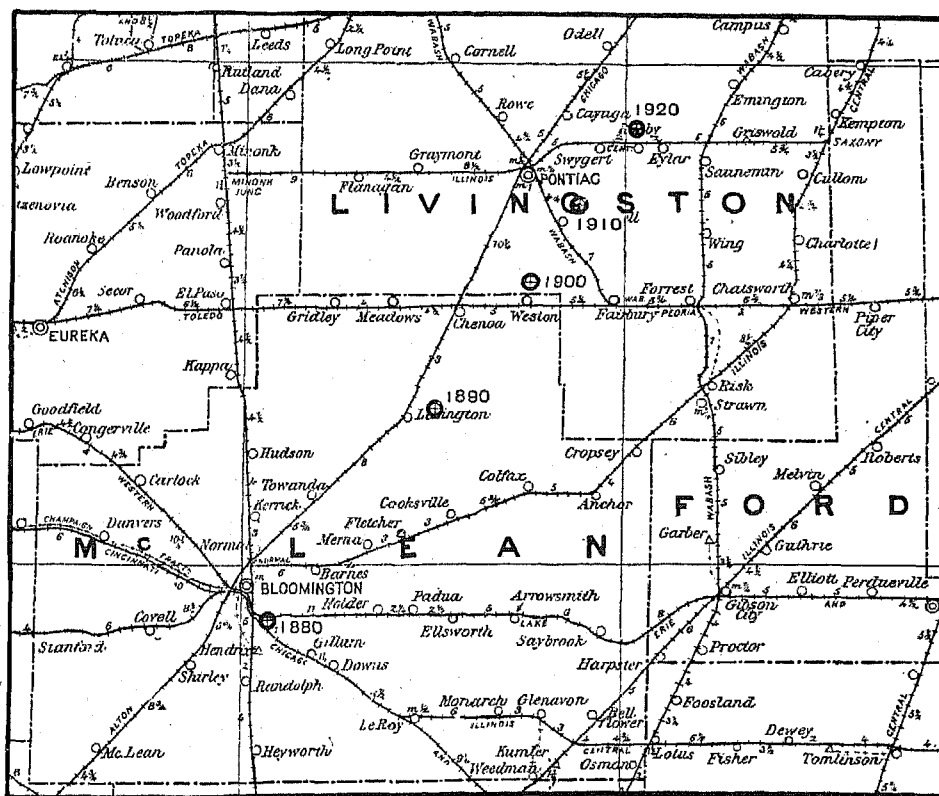
21

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

IDAHO



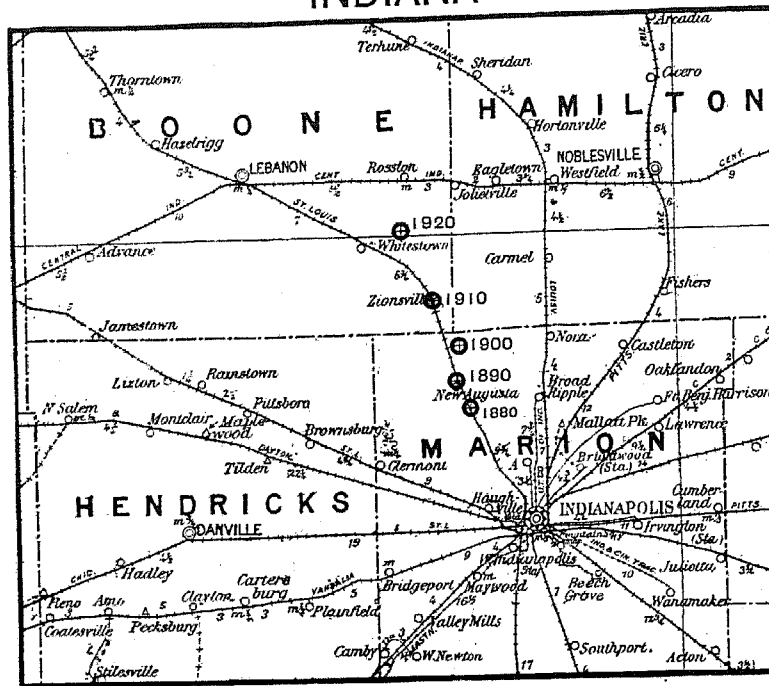
ILLINOIS



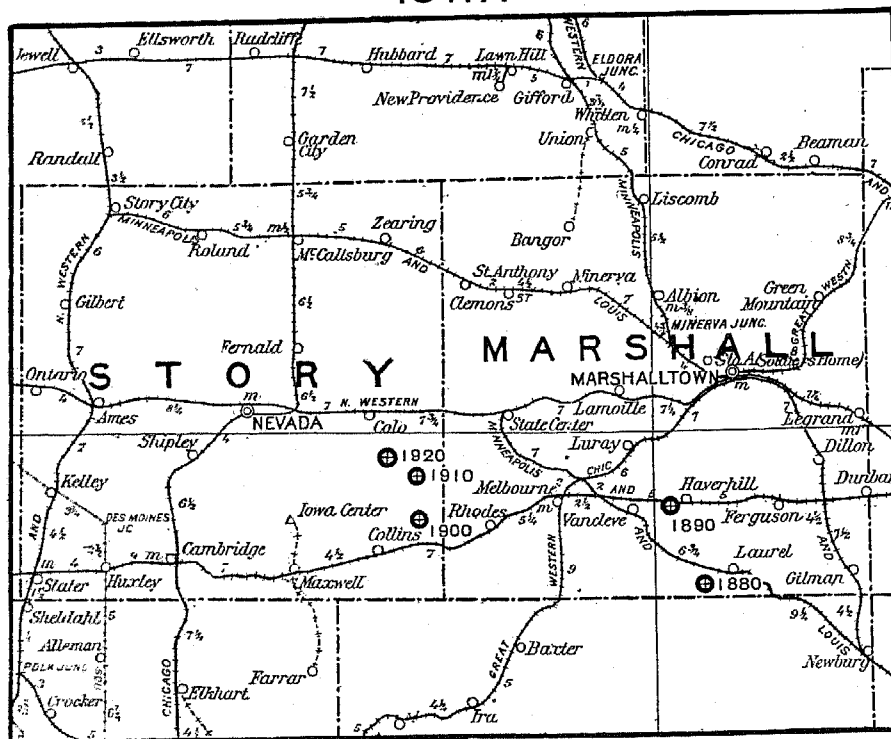
FOURTEENTH CENSUS: 1920.

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

INDIANA



IOWA

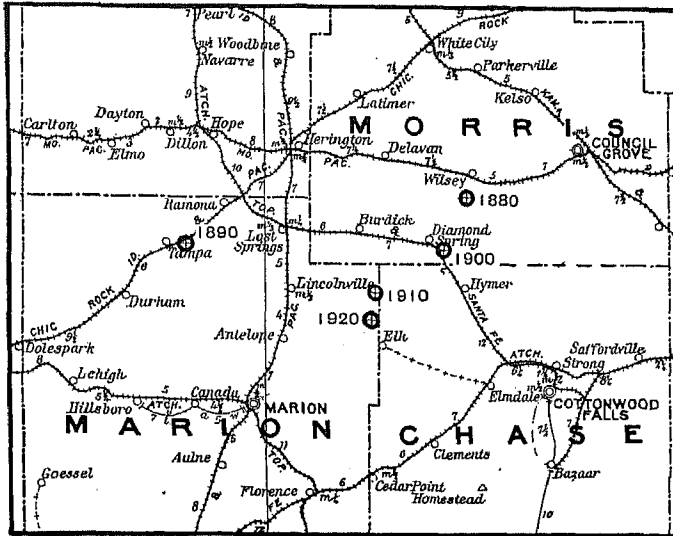


CENTER OF POPULATION.

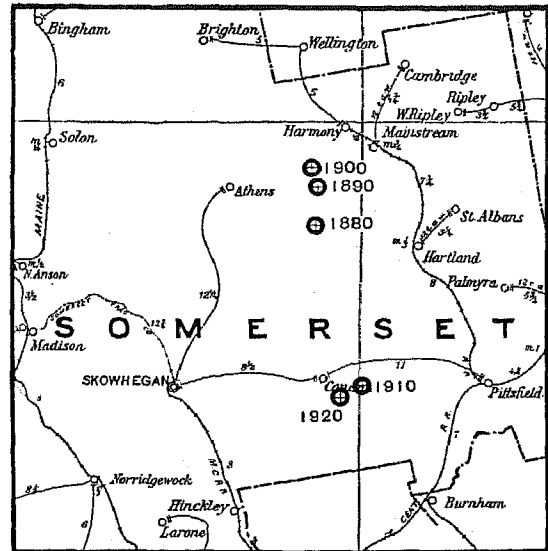
23

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

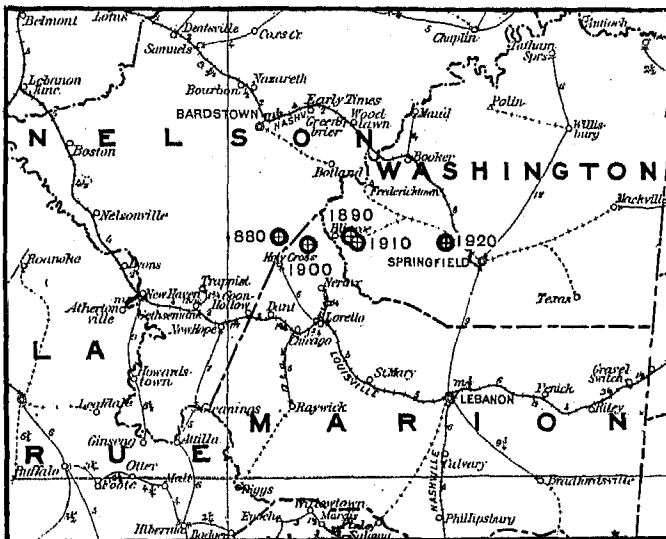
KANSAS



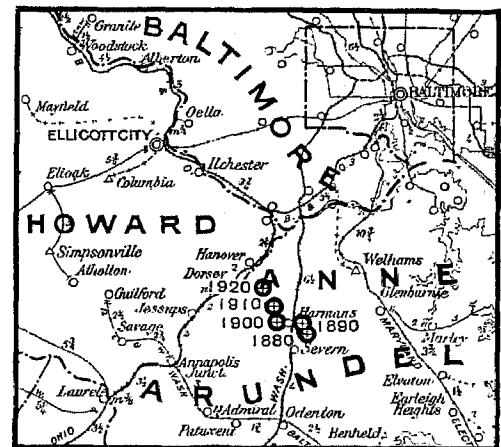
MAINE



KENTUCKY



MARYLAND



LOUISIANA



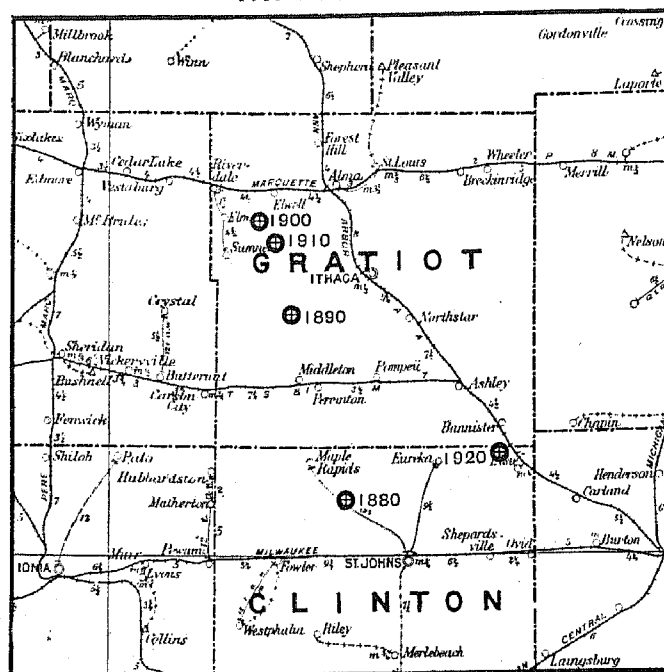
MASSACHUSETTS



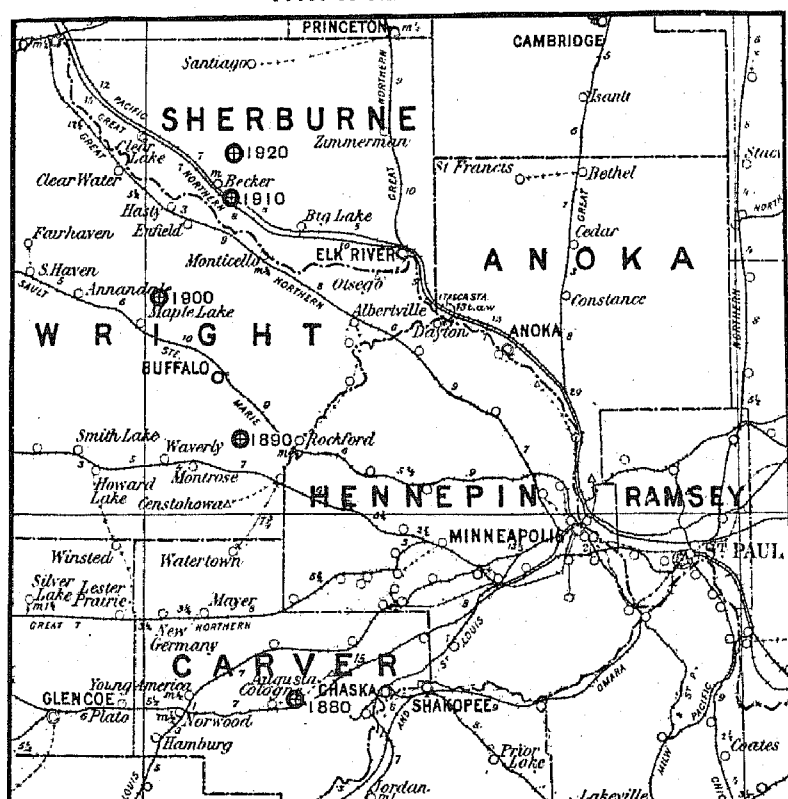
FOURTEENTH CENSUS: 1920.

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

MICHIGAN



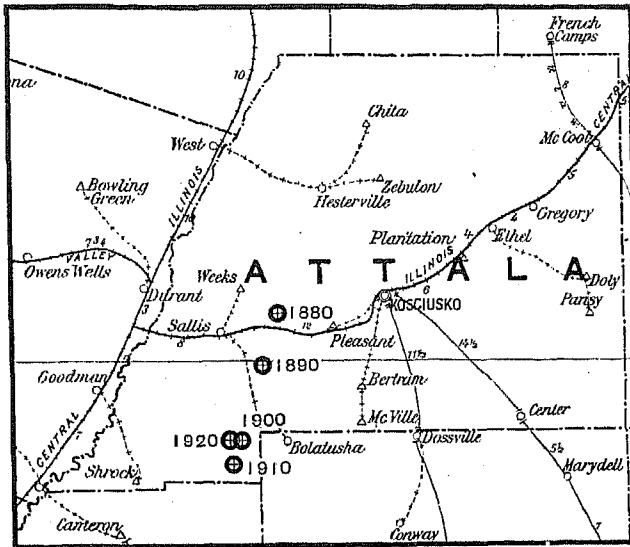
MINNESOTA



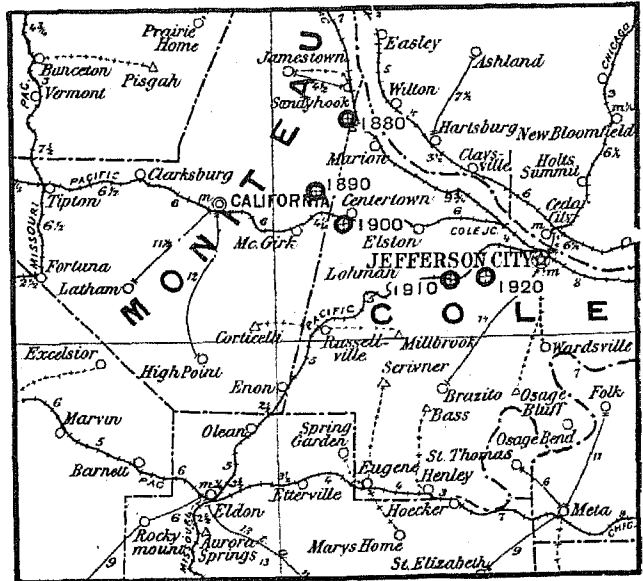
CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

DUPLICATE LIBRARY

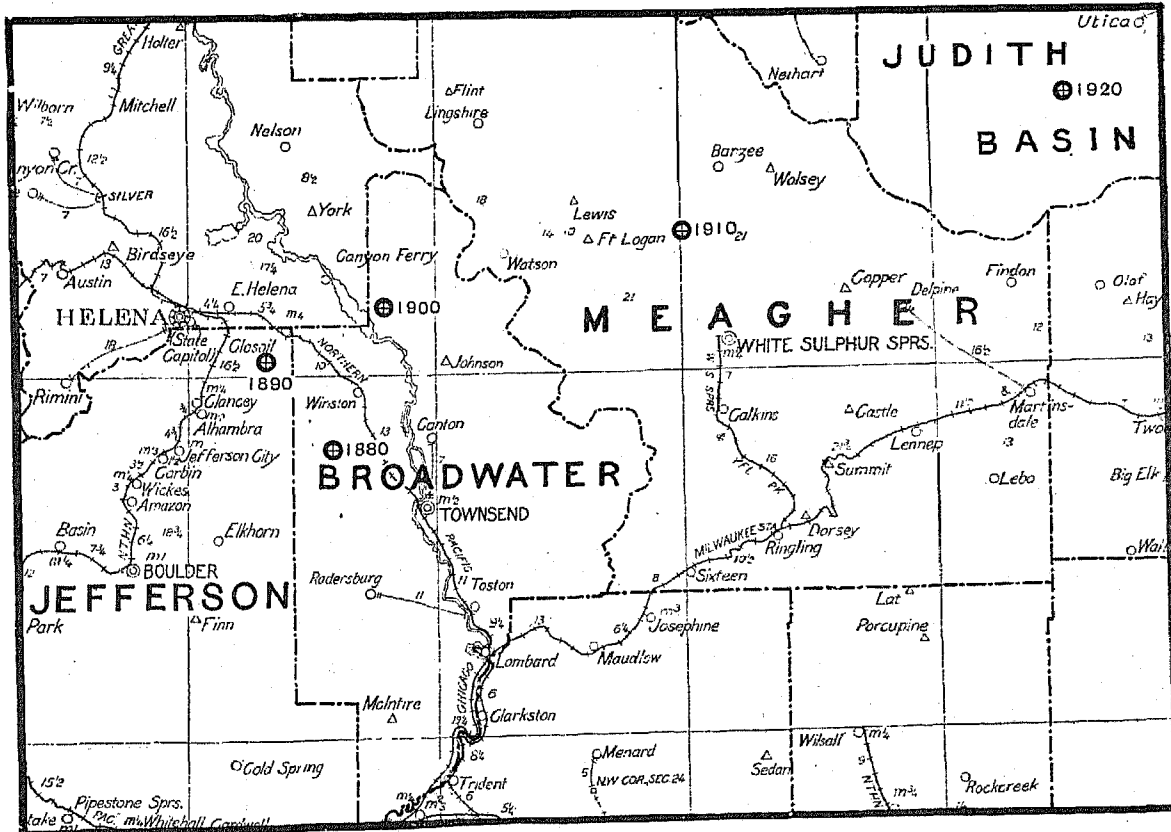
MISSISSIPPI



MISSOURI



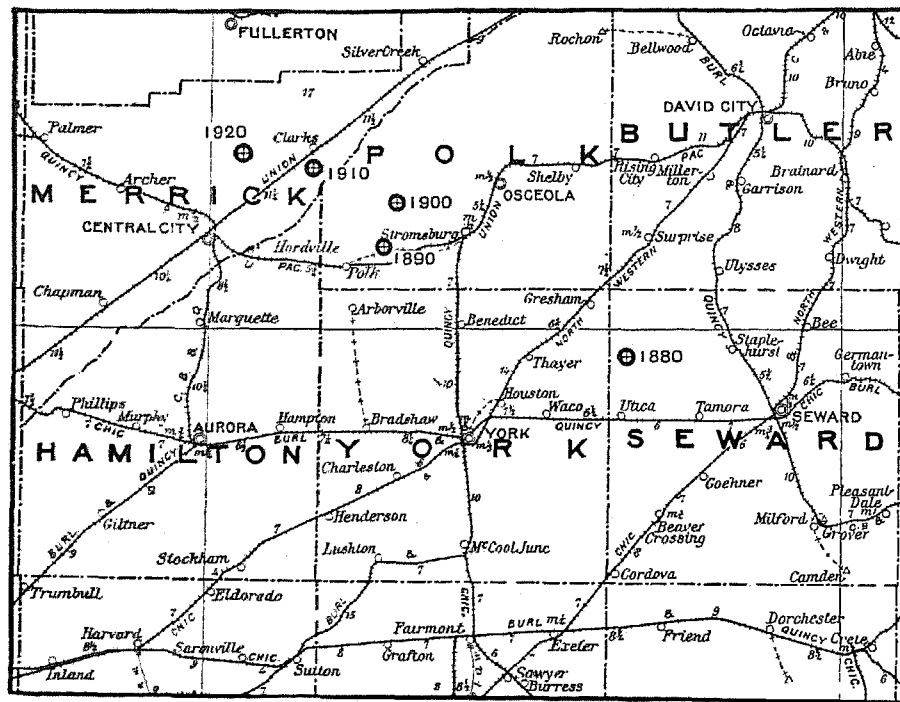
MONTANA



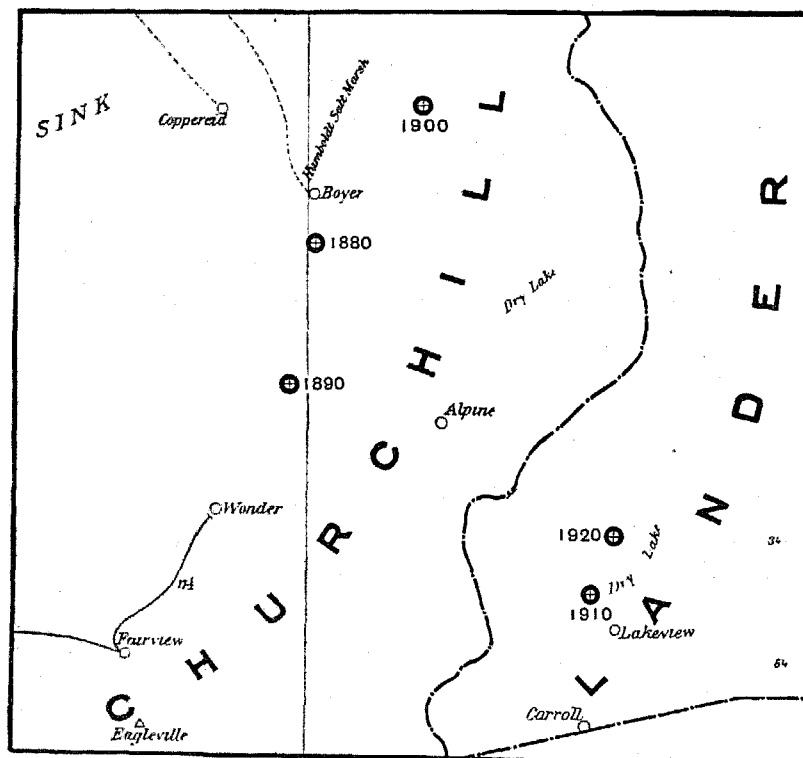
FOURTEENTH CENSUS: 1920.

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

NEBRASKA

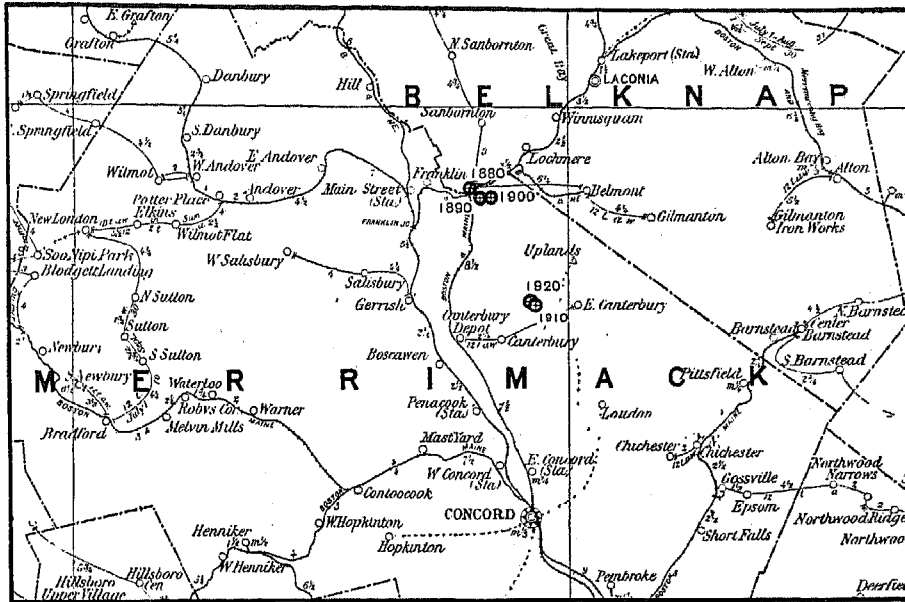


NEVADA

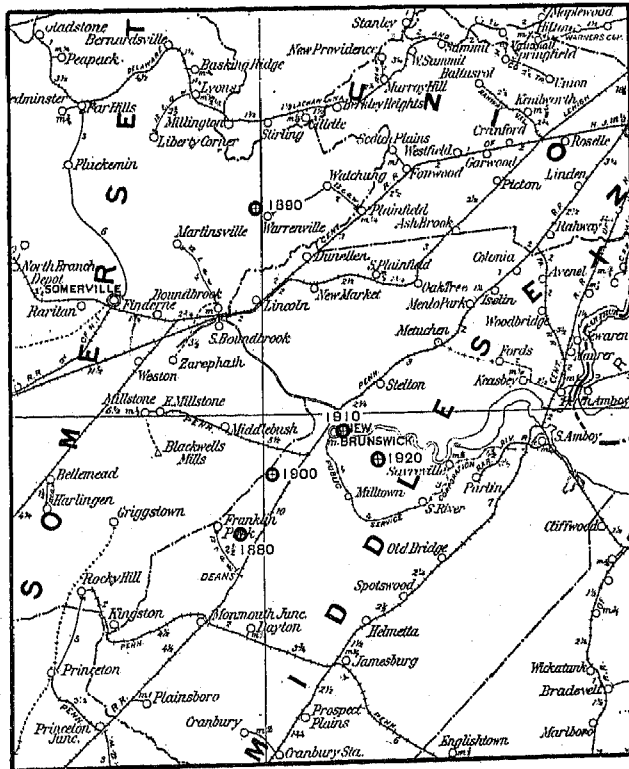


CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

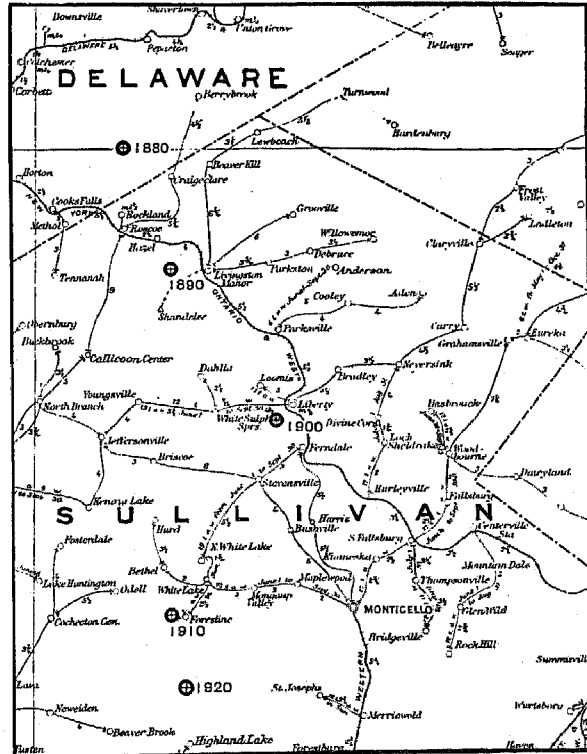
NEW HAMPSHIRE



NEW JERSEY



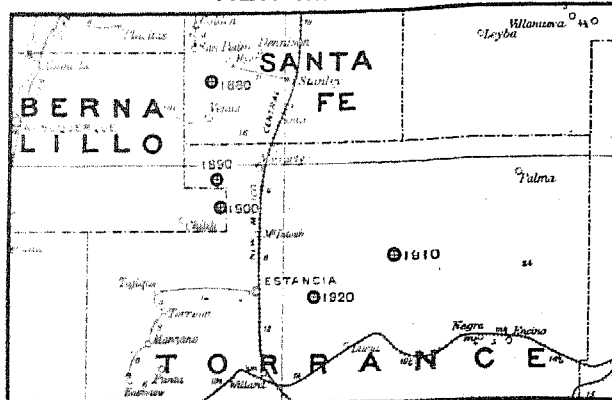
NEW YORK



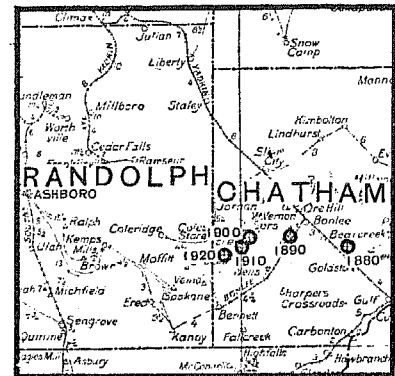
FOURTEENTH CENSUS: 1920.

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

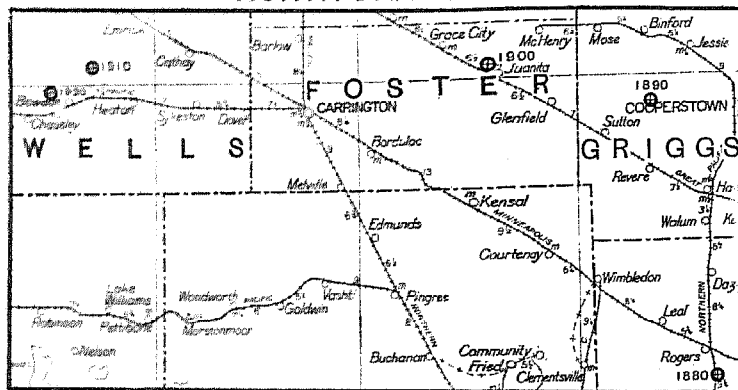
NEW MEXICO



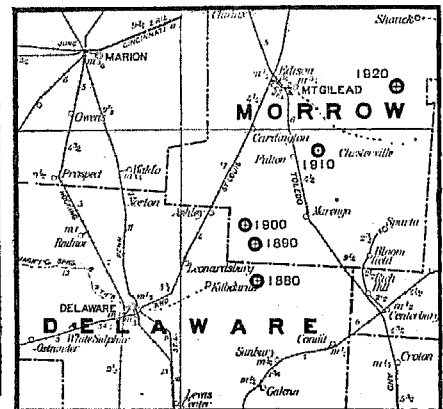
NORTH CAROLINA



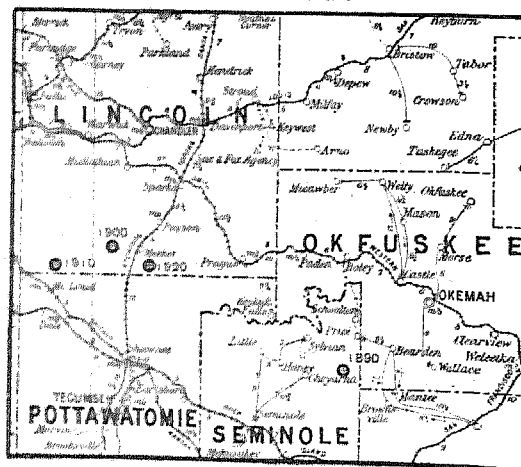
NORTH DAKOTA



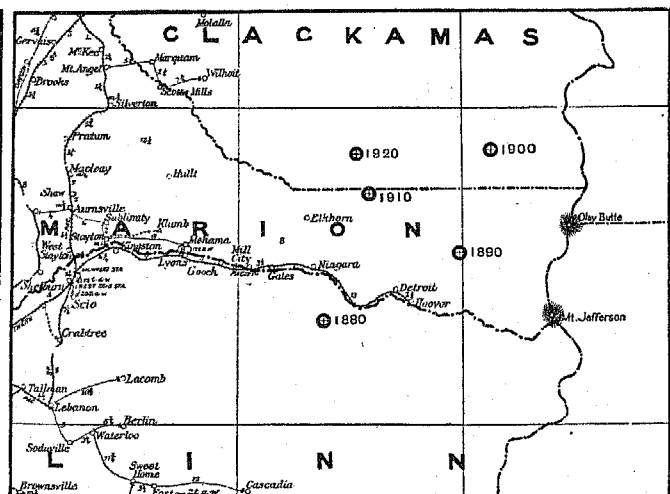
OHIO



OKLAHOMA



OREGON

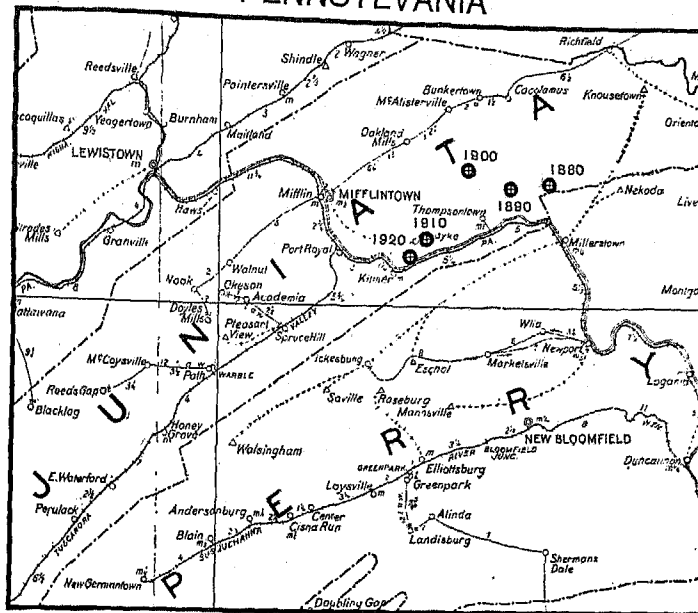


CENTER OF POPULATION.

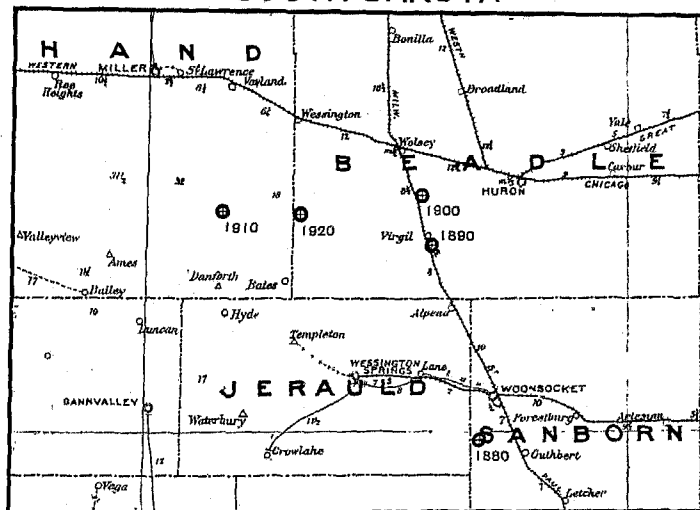
29

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

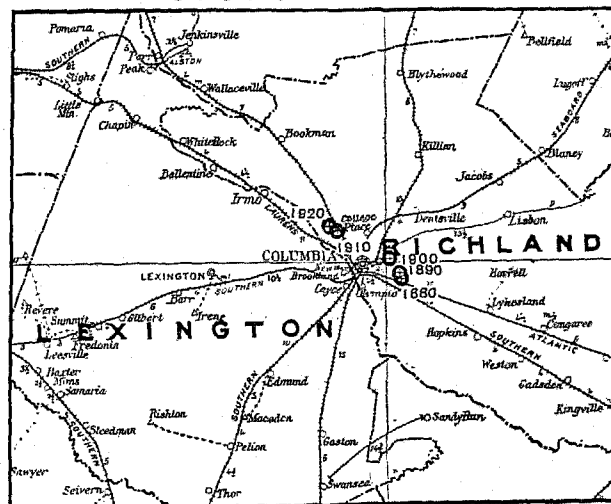
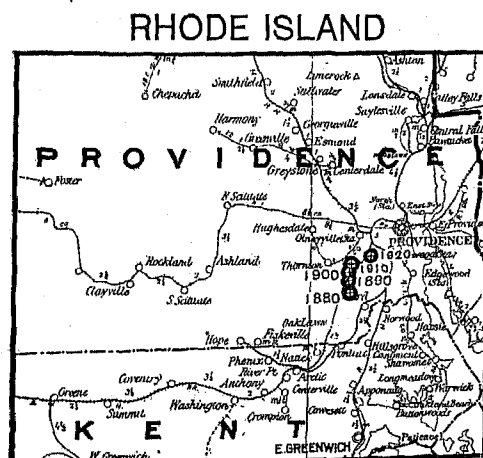
PENNSYLVANIA



SOUTH DAKOTA



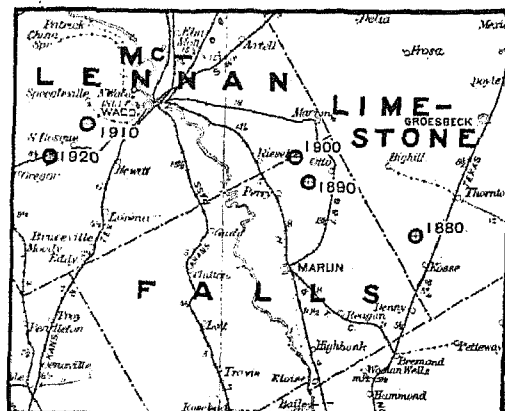
SOUTH CAROLINA



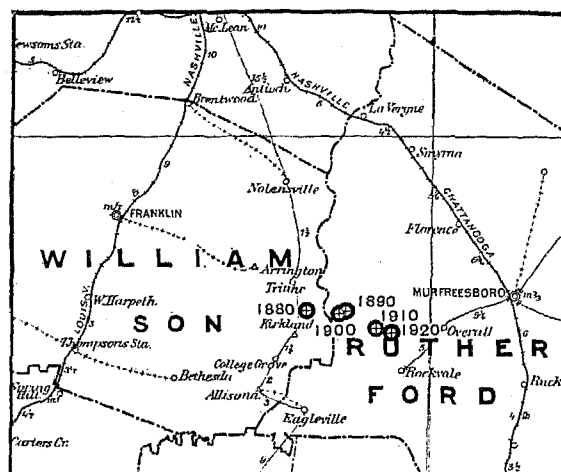
FOURTEENTH CENSUS: 1920.

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

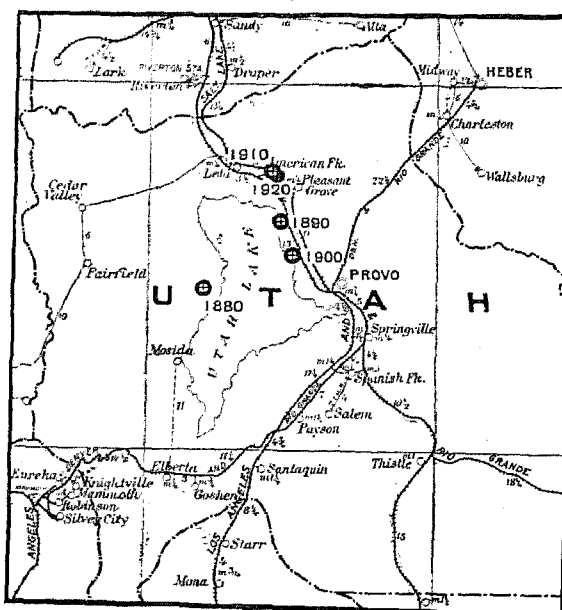
TEXAS



TENNESSEE



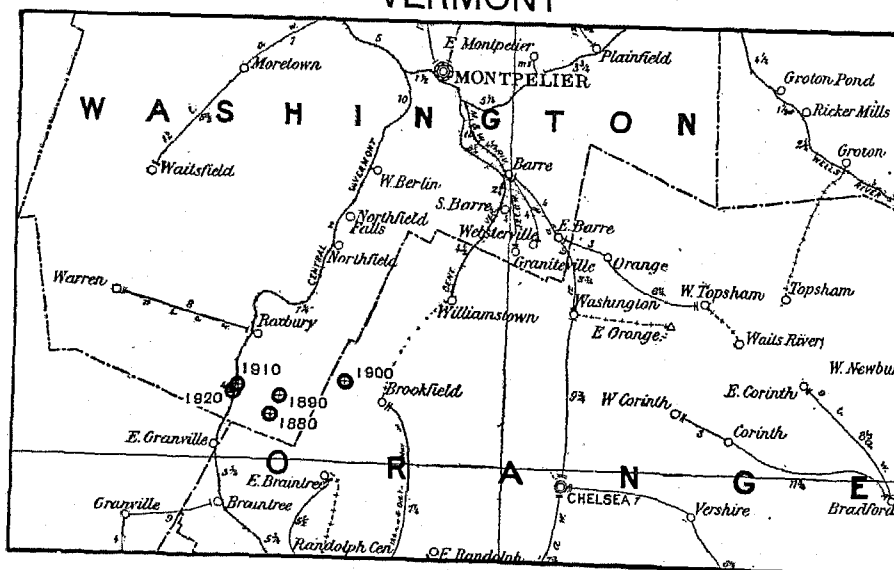
UTAH



VIRGINIA



VERMONT



CENTER OF POPULATION.

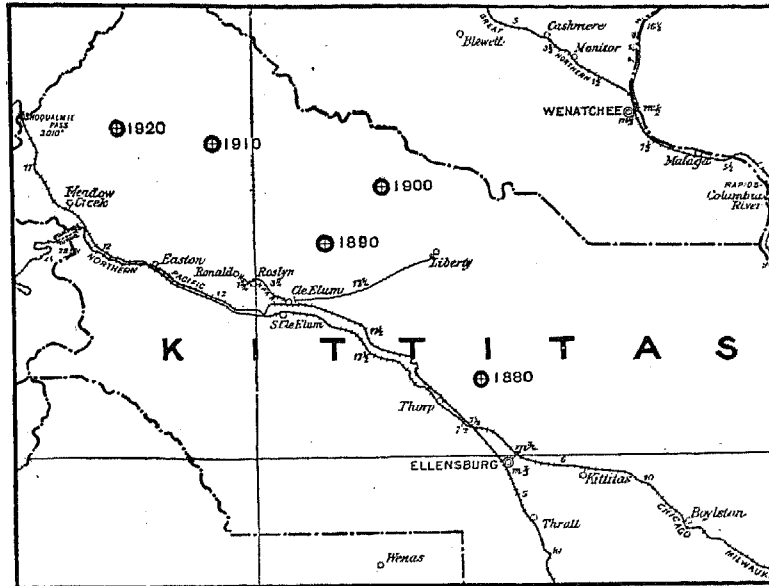
DUNN

31

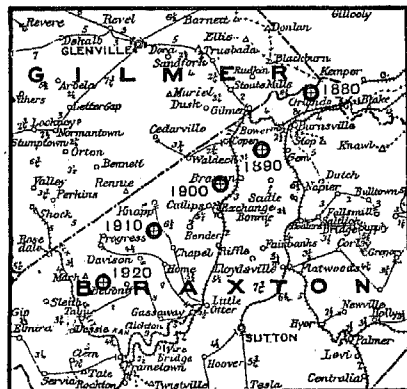
LIBRARY

CENTERS OF POPULATION: 1880, 1890, 1900, 1910, AND 1920.

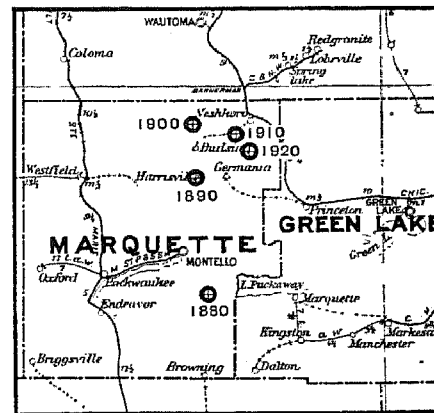
WASHINGTON



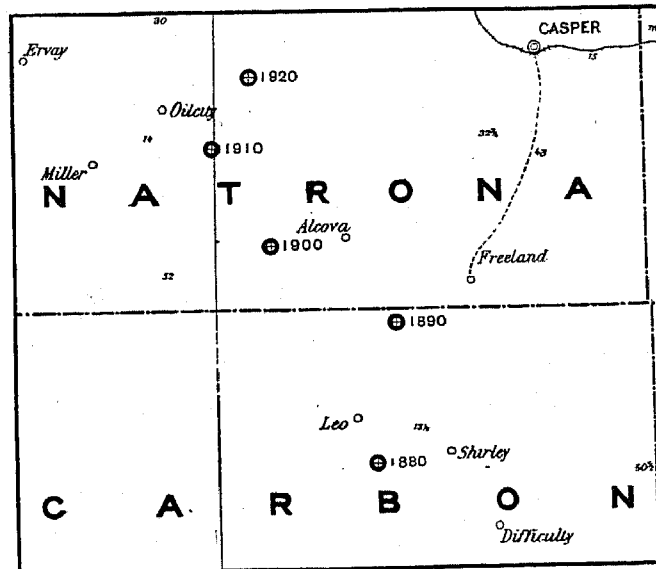
WEST VIRGINIA



WISCONSIN



WYOMING



CENTER OF AREA.

In connection with the location of the center of population of the United States, it is of interest to note also the position of what may be termed the center of area—that is, the point on which the surface of continental United States would balance, if it were a plane of uniform weight per unit of area. This point is located in northern Kansas, 10 miles north of Smith Center, the county seat of Smith County, approximate latitude $39^{\circ} 55'$, longitude $98^{\circ} 50'$, and is, therefore, $44^{\circ} 39''$ (51.3 miles) north and $12^{\circ} 6' 45''$ (647.4 miles) west of the center of population. Its location is shown on the map on page 11 designating the position of the median lines. This would be the center of population, if the population were distributed evenly over the territory of continental United States.

The Geological Survey, Department of the Interior, has determined the center of area of each state as given in the following table and as shown on the map on page 33:

GEOGRAPHIC CENTERS OF THE STATES.

STATE.	County.	Approximate location.
Alabama.....	Chilton.....	12 miles southwest of Clanton.
Arizona.....	Yavapai.....	45 miles southeast of Prescott.
Arkansas.....	Pulaski.....	12 miles northwest of Little Rock.
California.....	Madera.....	35 miles northeast of Madera.
Colorado.....	Park.....	30 miles northwest of Pikes Peak.
Connecticut.....	Hartford.....	At East Berlin.
Delaware.....	Kent.....	11 miles east of Dover.
District of Columbia.....		Near corner of 4th and L Streets, N.W.
Florida.....	Hernando.....	12 miles north-northwest of Brookville.
Georgia.....	Twiggs.....	18 miles southeast of Macon.
Idaho.....	Custer.....	At Custer.
Illinois.....	Logan.....	28 miles northeast of Springfield.
Indiana.....	Boone.....	14 miles north-northwest of Indianapolis.
Iowa.....	Story.....	5 miles northeast of Ames.
Kansas.....	Barton.....	15 miles northeast of Great Bend.
Kentucky.....	Marion.....	3 miles north-northwest of Lebanon.
Louisiana.....	Avoyelles.....	3 miles southeast of Marksville.
Maine.....	Piscataquis.....	18 miles north of Dover.
Maryland.....	Anne Arundel.....	3 miles east of Collington.
Massachusetts.....	Worcester.....	Northern part of city of Worcester.
Michigan.....	Wexford.....	5 miles north-northwest of Cadillac.
Minnesota.....	Crow Wing.....	10 miles southwest of Brainerd.
Mississippi.....	Leake.....	9 miles west-northwest of Carthage.
Missouri.....	Miller.....	20 miles southwest of Jefferson City.
Montana.....	Fergus.....	12 miles west of Lewiston.
Nebraska.....	Custer.....	10 miles northwest of Broken Bow.
Nevada.....	Lander.....	24 miles southeast of Austin.
New Hampshire.....	Belknap.....	3 miles east of Ashland.
New Jersey.....	Mercer.....	5 miles southeast of Trenton.
New Mexico.....	Torrance.....	12 miles south-southwest of Willard.
New York.....	Madison.....	6 miles south-southeast of Oneida.
North Carolina.....	Chatham.....	10 miles northwest of Sanford.
North Dakota.....	Sheridan.....	25 miles northeast of Washburn.
Ohio.....	Delaware.....	25 miles north-northeast of Columbus.
Oklahoma.....	Oklahoma.....	8 miles north of Oklahoma City.
Oregon.....	Crook.....	25 miles south-southeast of Prineville.
Pennsylvania.....	Centre.....	24 miles southwest of Bellefonte.
Rhode Island.....	Kent.....	1 mile south-southwest of Crompton.
South Carolina.....	Richland.....	13 miles southeast of Columbia.
South Dakota.....	Hughes.....	8 miles northeast of Pierre.
Tennessee.....	Rutherford.....	5 miles northeast of Murfreesboro.
Texas.....	Mculloch.....	20 miles northeast of Brady.
Utah.....	Sanpete.....	3 miles north of Manti.
Vermont.....	Washington.....	3 miles east of Roxbury.
Virginia.....	Appomattox.....	11 miles east-southeast of Amherst.
Washington.....	Chelan.....	10 miles west-southwest of Wenatchee.
West Virginia.....	Braxton.....	4 miles east of Sutton.
Wisconsin.....	Wood.....	9 miles southeast of Marshfield.
Wyoming.....	Fremont.....	38 miles east-northeast of Lander.

CENTER OF FOREIGN-BORN POPULATION.

The movement of the center of the total population from census to census is the result of all migration, both interstate and foreign. In view of the change in the character of the foreign immigration and the large proportion of immigrants who are settling in the cities, the location of the center of foreign-born population and its movement from decade to decade is a matter of great interest.

On the map on page 9 the position of the center of total population at each census from 1790 to 1920 is indicated, also the location of the center of the foreign-born population from 1880 to 1920. The location of the center of population and the median point were discussed on pages 7 to 12. At the census of 1910, the center of the foreign-born population was computed from 1880 to 1910, the center of this class of the population not having been worked at a previous census.

In 1880 the center of the foreign-born population was located in Monroe County, Mich., in latitude $41^{\circ} 49' 52''$, longitude $83^{\circ} 44' 17''$, approximately 15.5 miles northwest of Toledo, Ohio.

In 1890 the center had advanced almost 2° to the west. The opening of Oklahoma and the increase in the population of Texas drew the point to the south, when it was located in latitude $41^{\circ} 22' 5''$, longitude $85^{\circ} 23' 17''$, in Noble County, Ind., approximately 54.5 miles southeast of South Bend.

The falling off in the class of immigrants who settled in the far Western states is indicated by the change in the direction of the movement from 1890 to 1900, for in 1900 the center of the foreign-born population was located in Defiance County, Ohio, 18 miles northwest of Defiance, being in latitude $41^{\circ} 22' 48''$, almost the same latitude as in 1890, and longitude $84^{\circ} 43' 21''$, nearly a degree farther east. The eastern movement was due, as previously stated, to the newer immigration that settled principally in the large cities of the East.

In 1910 the center of foreign-born population was again located in Defiance County, Ohio, about 10.5 miles west of Defiance, in latitude $41^{\circ} 17' 24''$, showing a decided movement south, and in longitude $84^{\circ} 36' 7''$, showing a further advance toward the east, but not nearly as great as during the previous decade. This was undoubtedly due to the great increase in the foreign-born population of California, which, on account of its great distance from the center, has a much greater weight than an equal number of foreign-born in the Eastern and Middle states.

In 1920 the center of foreign-born population was located in latitude $41^{\circ} 3' 45''$, longitude $84^{\circ} 49' 17''$, in the eastern part of Allen County, Ind., about

10.8 miles east of New Haven and 16 miles east of Fort Wayne. For the first time in three decades the center of foreign-born population showed a western movement. From 1890 to 1900 it moved 35.6 miles in a northeasterly direction, and from 1900 to 1910, 8.2 miles in a southeasterly direction. At the latter censuses the center was located in Defiance County, Ohio, but in 1920 it moved just across the state boundary line into Allen County, Ind. The center in 1880 was located in Monroe County, Mich., and in 1890 in Noble County, Ind., so that in 30 years the center has returned to the state in which it was located in 1890.

The change in direction of the movement of this center from east to west is due principally to the increase in foreign-born white population in the state

of California. The total increase in the foreign-born white population of the United States was 367,209 and the increase in the states of Texas, California, and Arizona was 316,222, or 86 per cent of the total increase. Of the 20 states showing an increase in this element of their population from 1910 to 1920, 12 were located east of the meridian on which the center was located in 1920, and 7 were west, while 1 state, Michigan, is divided by the meridian. The states west of the meridian, however, had much greater increases in their foreign-born white population than the states east; the largest increases were in California, Michigan, and Texas.

The following table gives the center of foreign-born population at each census, and its movement in miles, also the location in relation to a city.

CENTER OF FOREIGN-BORN POPULATION: 1880 TO 1920.

CENSUS YEAR.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.	MOVEMENT IN MILES DURING PRECEDING DECADE.				
				From point to point in direct line.	East-ward.	West-ward.	North-ward.	South-ward.
1880.....	41 49 52	83 44 17	In Monroe County, Mich., 15.5 miles northwest of Toledo, Ohio.....					
1890.....	41 22 5	85 23 17	In Noble County, Ind., 54.5 miles southeast of South Bend, Ind.....	91.6		85.8		32.0
1900.....	41 22 48	84 43 21	In Defiance County, Ohio, 18 miles northwest of Defiance, Ohio.....	35.6	34.6		8.2	
1910.....	41 17 24	84 36 7	In Defiance County, Ohio, 10.5 miles southwest of Defiance, Ohio.....	8.2	5.4			6.2
1920.....	41 3 45	84 49 17	In Allen County, Ind., 10.8 miles east of New Haven, Ind.....	18.9		11.5		15.0

CENTER OF NEGRO POPULATION.

The question of negro migration has always been one of great interest and, on the map on page 9, the location of the center of negro population of continental United States is indicated. The center of negro population was computed for 1790 and for each census from 1880 to 1920, no computations being made for the censuses from 1800 to 1870, inclusive. The movement of the center of negro population is an accurate index of the direction of negro migration. In 1790 the center of negro population was located in Dinwiddie County, Va., 25 miles west-southwest of Petersburg, in latitude 37° 4' 8" north, and longitude 77° 51' 21" west. In 1880 the center was located in northwestern Georgia, 10.4 miles east of Lafayette, in the eastern part of Walker County, latitude 34° 42' 14" north, longitude 85° 6' 56" west. From 1880 to 1890 the southwesterly movement of the center was continued, and it advanced 20.1 miles, to a point in Walker County, Ga., 10.5 miles southwest of Lafayette, latitude 34° 36' 18" north, longitude 85° 26' 49" west, about 4 miles east of the Alabama line. In 100 years it had moved southwest 463 miles, an average of 46 miles for each decade. From 1890 to 1900 its movement was greatly retarded, and it advanced only

9.1 miles southwest, across the Alabama-Georgia state line into Dekalb County, Ala., 10.7 miles northeast of Fort Payne, in northeastern Alabama, about 4 miles west of the Georgia line, latitude 34° 31' 16" north, longitude 85° 34' 35" west. In 1910 the center of negro population was located 5.4 miles north-northeast of Fort Payne, Dekalb County, Ala., in latitude 34° 30' 0" north, and longitude 85° 40' 43" west, its movement for the decade being 6.0 miles west-southwest. Its movement south was evidently greatly retarded by the migration of the negroes to the Northern and Eastern states. A study of the movement from 1790 to 1910 shows a steady advance in a southwesterly direction, but the distance covered at each decade is much smaller than the movement at the previous decade. In 1920 it moved back across the state line into Georgia and was located in latitude 34° 46' 52", and longitude 85° 30' 48", the eastern movement being 9' 55", or approximately 9.4 miles, and the northern movement being 16' 52", or 19.4 miles. Its location was approximately 1.8 miles north-northeast of Rising Fawn town, Dade County, Ga. For the first time in the history of the country, the center of negro population has moved northeast, its former movements having been in a southwesterly direction; this northeasterly movement was due prin-

cipally to the great increase in the negro population of Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, West Virginia, Ohio, Indiana, and Michigan. The total increase in the negro population of the United States was 635,368, and it will be noted that the increase in the Northern states mentioned was 56 per cent of the total increase. This hegrira north of the negro population was due mainly to the expansion of certain industries during the World War,

the high wages paid being the great attraction. It is probably true that this movement has been continued, due to the reduction of the cotton crop and the demand for common labor at higher wages in the North.

In the following table is given the latitude and longitude of the center of negro population at each census, also the distance moved during the decade, and the location of the center relative to a city or town:

CENTER OF NEGRO POPULATION: 1790 AND 1880 TO 1920.

CENSUS YEAR.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.	MOVEMENT IN MILES DURING PRECEDING DECADE.				
				From point to point in direct line.	Eastward.	Westward.	Northward.	Southward.
1790.....	37 4 8	77 51 21	25 miles west-southwest of Petersburg, Dinwiddie County, Va.....					
1880.....	34 42 14	85 6 56	10.4 miles east of Lafayette, Walker County, Ga.....	1444.5		1413.5		1163.1
1890.....	34 36 18	85 26 49	10.5 miles southwest of Lafayette, Walker County, Ga.....	20.1		18.9		6.8
1900.....	34 31 16	85 34 35	10.7 miles northeast of Fort Payne, Dekalb County, Ala.....	9.1		7.02		5.8
1910.....	34 30 0	85 40 43	5.4 miles north-northeast of Fort Payne, Dekalb County, Ala.....	6.0		5.3		1.5
1920.....	34 46 52	85 30 48	1.8 miles north-northeast of Rising Fawn, Dade County, Ga.....	21.6	9.4		19.4	

¹ Movement from 1790 to 1880.

CENTERS OF URBAN AND RURAL POPULATION:
1910 AND 1920.

On page 9, in addition to the centers of total and foreign-born population, are indicated the locations of the centers of urban and rural population in 1910 and 1920. As the centers of urban and rural population were not computed for previous censuses, no statement can be made as to the distance or direction in which these centers moved from 1900 to 1910 or during any previous decade. In 1910 not only was the center of urban population located, but the center of rural population was also ascertained—that is, the population excluding all places with 2,500 or more inhabitants in 1910, as well as the New England towns of that size. The center of urban population was located in 1910 in latitude 40° 16' 12" and longitude 83° 59' 22", in Champaign County, Ohio, 15.3 miles northeast of Piqua, Miami County, Ohio. In 1920 the center of urban population was located in latitude 40° 5' 7" and longitude 84° 40' 53", in Darke County, Ohio, 2.8 miles west-southwest of Greenville city.

In 1910 the center of rural population was located in latitude 38° 12' 36" and longitude 88° 39' 3", in Hamilton County, Ill., 16.7 miles southeast of Mount

Vernon, Jefferson County, Ill. In 1920 the center of rural population was located in latitude 38° 12' 31" and longitude 88° 49' 22", in Jefferson County, Ill., 8.5 miles southeast of Mount Vernon.

The location of these centers shows strikingly the preponderance of urban population in the northeastern portion of the United States, the center of urban population in 1920 being approximately 129.5 miles north and 225.4 miles east of the center of rural population. In a direct line the center of urban population was 260 miles northeast from the center of rural population.

From 1910 to 1920 the center of urban population moved 12.7 miles south and 36.7 miles west. During the same period the center of rural population moved 0.1 of a mile south and 9.4 miles west. The greater westward movement of the center of urban population is surprising, but it is probably due to the decrease in the number of immigrants, who usually settle in the eastern cities. The movement of the center of rural population west is significant as it is due to a decrease in the rural population of the east and a fair increase in the west. The increase in the rural population of the Mountain, Pacific, and West South Central divisions, was the principal factor in the westward movement.

FOURTEENTH CENSUS: 1920.

CENTER OF URBAN POPULATION: 1910 AND 1920.

CENSUS YEAR.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.	MOVEMENT IN MILES DURING PRECEDING DECADE.			
				From point to point in direct line.	Westward.	Northward.	Southward.
1910.....	40 16 12	83 59 22	15.3 miles northeast of Piqua, Miami County, Ohio.....	38.8	36.7	.....	12.7
1920.....	40 5 7	84 40 53	2.8 miles west-southwest of Greenville, Darke County, Ohio.....	.....	.....	.....	.....

CENTER OF RURAL POPULATION: 1910 AND 1920.

CENSUS YEAR.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.	MOVEMENT IN MILES DURING PRECEDING DECADE.			
				From point to point in direct line.	Westward.	Northward.	Southward.
1910.....	38 12 36	88 39 3	In Hamilton County, Ill., 16.7 miles southeast of Mount Vernon, Jefferson County, Ill. ....	.....	.....	.....	.....
1920.....	38 12 31	88 49 22	8.5 miles southeast of Mount Vernon, Jefferson County, Ill.	9.4	9.4	.....	0.1

CENTERS OF AGRICULTURE.

The map, page 39, shows the location of the center of population from 1790 to 1920, and the centers of the number of farms, total area in farms, improved acreage, farm values, agricultural products, and manufactures, from 1850 to 1920, and may be designated as a chart of the progress of the Nation, representing, as it does, the westward movement of population, agriculture, and manufactures.

CENTER OF NUMBER OF FARMS.

The center of the number of farms in 1850 was located on the Ohio River, between Ohio and the present state of West Virginia, at nearly the same point as the center of corn production. From this position the center of the number of farms moved 116.8 miles in a northwesterly direction, and in 1860 reached a point 13 miles southeast of Xenia, Ohio. From 1860 to 1870 the center advanced 20.8 miles almost directly south to a position in Brown County, 31 miles east-northeast of Cincinnati, Ohio. From 1870 to 1880 the distance covered was 36.7 miles in a southwesterly direction across the Ohio River into Kentucky to a point 20 miles south by east of Newport. From 1880 to 1890 its progress of 100.1 miles was nearly due west into Indiana. From 1890 to 1900 it moved in a southwesterly direction 109.4 miles to a point 10 miles southeast of Fairfield, Wayne County, Ill. From 1900 to 1910 the center moved west-southwest 43.2 miles to a point 6.6 miles north-northwest of Benton, Franklin County, Ill. From 1910 to 1920 the southwestern movement was continued and the center advanced 25.9 miles and was located 4.2 miles southwest of Pinckneyville, Perry County, Ill.

CENTER OF TOTAL FARM AREA.

The center of the number of acres of farm land, or total area in farms, in 1850 was located in Owsley County, Ky., the farthest south of any center shown on the map except the center of cotton production. From 1850 to 1870 it moved to a point 55 miles east by north of Evansville, Ind. From 1870 to 1880 it advanced in a westerly direction to a position 7.3 miles northeast of Carmi, Ill. From 1880 to 1890 it moved northwest across the state of Illinois to a point 6 miles north by west of Alton, Ill., its next movement being southwest to a location about 48 miles southwest of Jefferson City, Mo. The center of total farm area has not been computed since 1900.

CENTER OF IMPROVED ACREAGE.

The center of improved acreage was first computed in 1900 when it was located in Pike County, Ill., 14 miles southeast by south of Pittsfield, in Pike County, Ill. From 1900 to 1910 it moved 65.1 miles, almost directly west to a point 9.2 miles east-northeast of Paris, Monroe County, Mo. From 1910 to 1920 its movement was northwest 47.8 miles to a point 3.8 miles south-southwest of New Cambria, Macon County, Mo.

CENTER OF VALUE OF FARM PROPERTY.

The center of the value of farm property, which in 1850 was located 13 miles northwest of Clarksburg, in the present state of West Virginia, in 1860 had advanced south and west to a point 14 miles northwest of Portsmouth, Ohio. From 1860 to 1870 its movement was northwest to a position 13 miles northwest of Urbana, Ohio. From 1870 to 1900 it moved west

in a straight line across Indiana and Illinois to a point in Cass County, 16 miles north-northwest of Jacksonville, Morgan County, Ill. Its greatest westward movement, and the greatest advance made for any decade, approximately 175 miles, was from 1880 to 1890.

The center of value of farm property advanced, from 1900 to 1910, 103.6 miles directly west and was located 14 miles south-southwest of Edina, Knox County, Mo. This is not as great an advance as from 1880 to 1890, nor from 1850 to 1860, but is the third largest western advance it has made. From 1910 to 1920 it advanced 45.1 miles in a westerly direction to a point 3.6 miles northeast of Linneus, Linn County, Mo.

CENTER OF PRODUCTION OF CEREALS.

The center of cereals, comprising corn, wheat, oats, barley, buckwheat, and rye, was first computed in 1900 when it was located 6 miles south of Warsaw, in Hancock County, Ill. From 1900 to 1910 it moved 28.6 miles north-northwest to a point 19.1 miles west of Fort Madison, in Lee County, Iowa. From 1910 to 1920 it moved 46.6 miles southwest to a point 4 miles south of Edina, in Knox County, Mo.

CENTER OF CORN PRODUCTION.

The center of corn production has moved in a westerly direction, but more rapidly than the center of population; as from 1850 to 1860 it moved south of west 271.7 miles, the distance traversed being greater than the entire western movement of the center of population from 1850 to 1900. Its movement from 1860 to 1870 and from 1870 to 1880 was almost directly northwest. From 1880 to 1890 it advanced south of west to a point 2 miles southwest of Carrollton, Ill. The movement from 1890 to 1900 was so slight that it could hardly be indicated on the map,

being only 17'' west and 2' 36'' north. The center of corn production was not computed in 1910, but from 1900 to 1920 it moved almost directly east to a point 2.8 miles southeast of Hettick, Macoupin County, Ill.; the movement was only 24.9 miles.

CENTER OF WHEAT PRODUCTION.

The center of wheat production has made a greater western and northern movement than any other center, as will be noted from its location in 1900. Its greatest southern advance was made from 1880 to 1890, and its greatest northern movement from 1890 to 1900. The center of wheat production was not computed in 1910, but from 1900 to 1920 it moved in a south-westerly direction 81.7 miles, to a point 3.2 miles east of Hamburg, Fremont County, Iowa.

CENTER OF OATS PRODUCTION.

The other agricultural centers have moved in various erratic courses, but always in a general westerly direction, except the center of oats production, which from 1850 to 1860 moved north and east. From 1860 to 1890 the center of oats production moved almost due west along the forty-first parallel of latitude. From 1890 to 1900 its course was northwest to a point 8 miles west of south of Tipton, Iowa. Its greatest movement was from 1860 to 1870, approximately 244 miles. As the center of oats production was not computed in 1910, the movement is given from 1900 to 1920. At the latter date it was located 3.7 miles north-northwest of Hedrick, Keokuk County, Iowa, a movement of 69.8 miles. Since 1900 the general direction of the movement has been southwest.

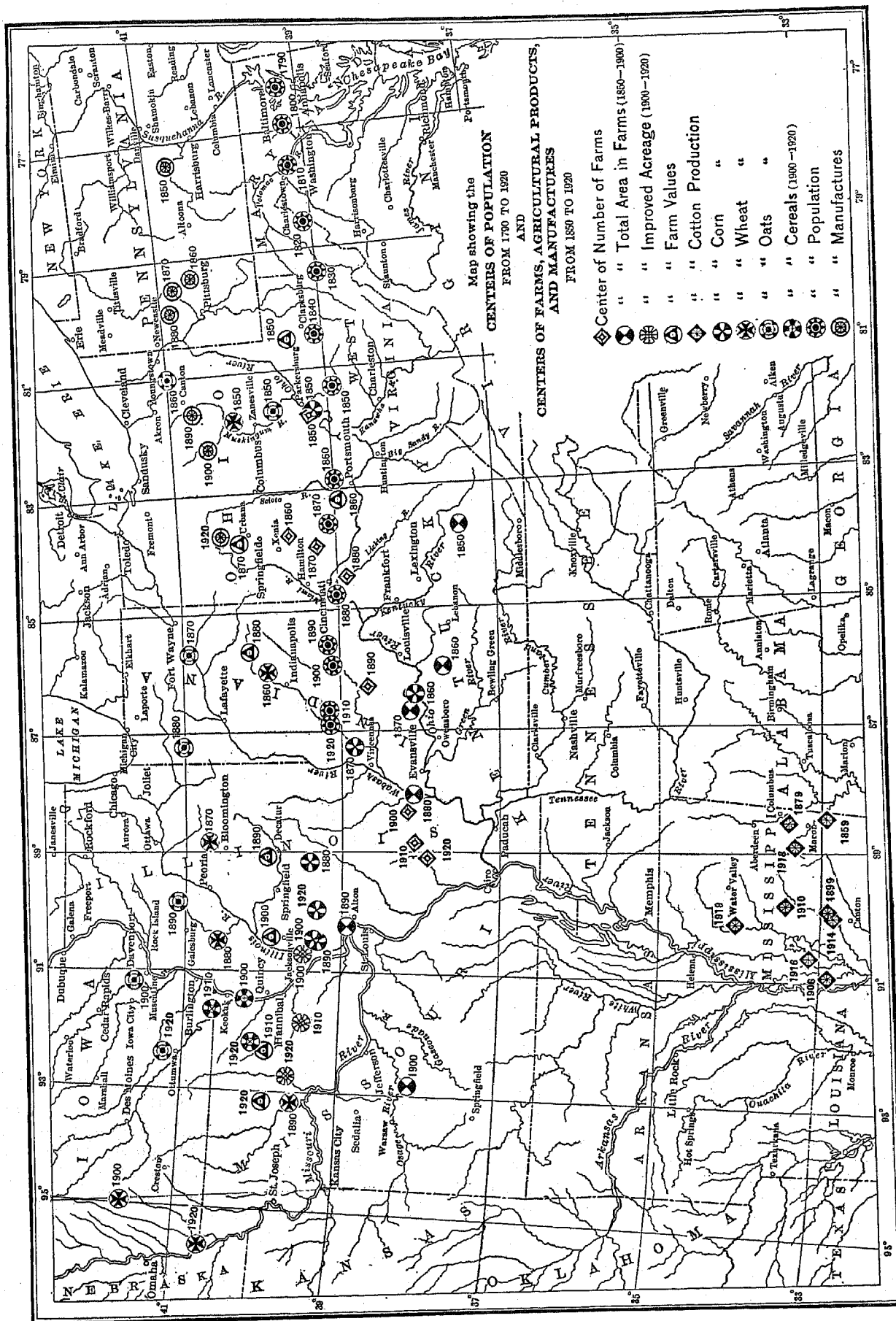
The movements of the centers of the number of farms, value of farm property, area in farms, and of oats, corn, and wheat production, as indicated on the map, are widely divergent.

FOURTEENTH CENSUS: 1920.

POSITIONS OF THE CENTERS OF AGRICULTURE: 1850 TO 1920.

CENSUS YEAR.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.	MOVEMENT IN MILES DURING PRECEDING DECADE.				
				From point to point in direct line.	East-ward.	West-ward.	North-ward.	South-ward.
NUMBER OF FARMS.								
1850.....	39 14 54	81 43 38	10 miles east-southeast of Athens, in Athens County, Ohio.....	116.8		115.6	16.9	
1860.....	39 29 38	83 52 36	13 miles southeast of Xenia, in Clinton County, Ohio.....	20.8		3.7		20.5
1870.....	39 11 48	83 56 44	31 miles east-northeast of Cincinnati, in Brown County, Ohio.....	36.7		25.0		26.8
1880.....	38 48 30	84 24 30	20 miles south by east of Newport, in Kenton County, Ky.....	100.1		99.4		11.7
1890.....	38 38 21	86 14 46	82 miles south by west of Indianapolis, in Washington County, Ind.....	109.4		106.6		24.5
1900.....	38 17 0	88 12 30	10 miles southeast of Fairfield, in Wayne County, Ill.....	43.2		40.6		14.7
1910.....	38 4 12	88 57 33	6.6 miles north-northwest of Benton, in Franklin County, Ill.....	25.9		25.7		2.9
1920.....	38 1 41	89 25 49	4.2 miles southwest of Pinckneyville, in Perry County, Ill.....					
TOTAL AREA IN FARMS.								
1850.....	37 26 20	83 36 22	4.5 miles southeast of Booneville, in Owsley County, Ky.....	127.3		126.2	16.9	
1860.....	37 41 1	85 54 39	40 miles south by west of Louisville, in Hardin County, Ky.....	38.2		26.1	27.9	
1870.....	38 5 19	86 34 17	55 miles east by north of Evansville, in Perry County, Ind.....	80.4		80.3	3.6	
1880.....	38 8 28	88 2 43	7.3 miles northeast of Carmi, in White County, Ill.....	129.2		115.8	57.4	
1890.....	38 58 22	90 11 44	6 miles north by west of Alton, in Madison County, Ill.....	153.6		143.9		53.8
1900.....	38 11 36	92 50 19	48 miles southwest of Jefferson City, in Camden County, Mo.....					
IMPROVED ACREAGE.								
1900.....	39 26 20	90 39 20	14 miles southeast by south of Pittsfield, in Pike County, Ill.....	65.1		64.9	5.6	
1910.....	39 31 12	91 52 13	9.2 miles east-northeast of Paris, in Monroe County, Mo.....	47.8		47.1	8.2	
1920.....	39 38 21	92 45 11	3.8 miles south-southwest of New Cambria, in Macon County, Mo.....					
VALUE OF FARM PROPERTY.								
1850.....	39 25 53	80 28 33	13 miles northwest of Clarksburg, in Harrison County, W. Va.....	152.3		148.3		34.8
1860.....	38 55 39	83 13 39	14 miles northwest of Portsmouth, in Scioto County, Ohio.....	97.1		33.0	91.3	
1870.....	40 15 2	83 51 8	13 miles northwest of Urbana, in Champaign County, Ohio.....	100.5		100.3		7.6
1880.....	40 8 26	85 44 46	33 miles northeast of Indianapolis, in Madison County, Ind.....	175.1		174.7		11.9
1890.....	39 58 4	89 2 15	34 miles east-northeast of Springfield, in Macon County, Ill.....	70.2		70.2		0.3
1900.....	39 57 48	90 21 35	16 miles north-northwest of Jacksonville, in Cass County, Ill.....	103.6		103.6		0.9
1910.....	39 57 0	92 18 36	14 miles south-southwest of Edina, in Knox County, Mo.....	45.1		45.1		1.8
1920.....	39 55 24	93 9 34	3.6 miles northeast of Linneaus, in Linn County, Mo.....					
GROSS FARM INCOME.								
1900.....	39 18 47	90 33 10	8 miles west by north of Carrollton, in Greene County, Ill.....					
PRODUCTION OF CEREALS.								
1900.....	40 16 13	91 25 10	6 miles south of Warsaw, in Hancock County, Ill.....	28.6		14.4	24.8	
1910.....	40 37 48	91 41 36	19.1 miles west of Fort Madison, in Lee County, Iowa.....	40.6		25.6		39.0
1920.....	40 3 53	92 10 37	4 miles south of Edina, in Knox County, Mo.....					
PRODUCTION OF CORN.								
1850.....	39 7 0	81 47 0	86 miles east-southeast of Columbus, in Meigs County, Ohio.....	271.7		258.5		83.9
1860.....	38 1 54	86 29 4	17.5 miles north of Hardinsburg, in Breckinridge County, Ky.....	66.1		40.7	52.1	
1870.....	38 47 13	87 14 15	90 miles southwest of Indianapolis, in Daviess County, Ind.....	111.5		101.1	47.1	
1880.....	39 28 12	89 7 43	36 miles southeast of Springfield, in Christian County, Ill.....	71.8		70.7		12.9
1890.....	39 16 57	90 26 49	2 miles southwest of Carrollton, in Greene County, Ill.....	3.01		0.3	3.0	
1900.....	39 19 33	90 27 6	3.5 miles northwest of Springfield, in Greene County, Ill.....	124.9	124.9		11.1	
1910.....	39 20 33	89 59 12	2.8 miles southeast of Hettick, in Macoupin County, Ill.....					
1920.....								
PRODUCTION OF WHEAT.								
1850.....	40 14 18	81 58 49	57 miles east-northeast of Columbus, in Coshocton County, Ohio.....	215.3		214.7		16.5
1860.....	39 59 59	86 1 38	13.5 miles north by east of Indianapolis, in Hamilton County, Ind.....	153.1		146.3	45.2	
1870.....	40 39 17	88 48 40	74 miles northeast of Springfield, in McLean County, Ill.....	89.6		89.5		3.5
1880.....	40 36 14	90 30 46	69 miles northwest of Springfield, in McDonough County, Ill.....	155.8		138.4		71.7
1890.....	39 33 53	93 9 18	10 miles north by west of Brunswick, in Chariton County, Mo.....	172.6		95.0	144.2	
1900.....	41 39 19	94 59 23	70 miles west of Des Moines, in Audubon County, Iowa.....	81.7		137.9		172.4
1910.....	40 36 20	95 42 39	3.2 miles east of Hamburg, in Fremont County, Iowa.....					
1920.....								
PRODUCTION OF OATS.								
1850.....	39 43 22	81 35 29	80 miles east-southeast of Columbus, in Noble County, Ohio.....	93.3	29.1		88.6	
1860.....	41 0 38	81 2 5	48 miles southeast of Cleveland, in Portage County, Ohio.....	244.0		244.0		0.3
1870.....	40 59 13	85 42 46	30 miles west by south of Fort Wayne, in Wabash County, Ind.....	79.2		79.1	4.0	
1880.....	41 2 43	87 13 37	6 miles northwest of Rensselaer, in Jasper County, Ind.....	133.3		133.0		9.2
1890.....	41 10 43	89 46 52	39 miles north-northeast of Peoria, in Stark County, Ill.....	77.3		70.1	32.6	
1900.....	41 39 15	91 8 11	8 miles west of south of Tipton, in Cedar County, Iowa.....	69.8		62.7		130.8
1910.....	41 12 27	92 20 21	3.7 miles north-northwest of Hedrick, in Keokuk County, Iowa.....					
1920.....								

¹ Movement from 1900 to 1920.



CENTER OF COTTON PRODUCTION.

The location of the center of cotton production is indicated in the following table and on the map, page 39, for the years 1859, 1879, 1899, 1906, 1910, 1914, 1916, 1918, and 1919. The center in 1879 showed a movement almost directly north from that of 1859. From 1879 to 1906 the movement was in a southwesterly direction, but since 1906 the movement has been very irregular. In 1910 it moved northeast; in 1914 the movement was almost reversed and it moved directly south; from 1914 to 1916 it moved in a northwesterly direction; from 1916 to 1918 it moved directly east, to a point almost 20 miles west of its location in 1879; from 1918 to 1919 it again moved northwest about 75 miles, to a point 5.6 miles northeast of Greenwood, Leflore County, Miss., the highest northern latitude since 1859, when it was located in the eastern part of Mississippi, near the Alabama line.

It will be noted that all of these centers are in the state of Mississippi, and have practically crossed the state from its eastern to its western boundary. It is undoubtedly due to the destruction caused by the boll weevil that the center of cotton in 1919 was located so much farther north than its location in 1859 or in any subsequent year.

POSITION OF THE CENTER OF COTTON PRODUCTION.

CENSUS YEAR.	Approximate location by important towns.
1859.....	13 miles southeast of Macon, in Noxubee County, Miss.
1879.....	11 miles south of Columbus, in Lowndes County, Miss.
1899.....	13 miles southeast of Lexington, in Holmes County, Miss.
1906.....	5 miles northeast of Mayersville, in Issaquena County, Miss.
1910.....	3 miles southwest of Vaiden, in Carroll County, Miss.
1914.....	1 mile northwest of Sharpsburg, in Madison County, Miss.
1916.....	16 miles southeast of Arcola, in Washington County, Miss.
1918.....	6 miles southeast of Sturgis, in Oktibbeha County, Miss.
1919.....	5.6 miles northeast of Greenwood, in Leflore County, Miss.

CENTER OF MANUFACTURES.

In order to ascertain the position of the center of manufactures at each census from 1850 to 1920, except in 1910, as shown on page 41, the gross value of products was distributed by square degrees, and the remainder of the computations made as in computing the center of population. The center of manufactures, therefore, is really the center of the value of its gross products, and, as the value of products is representative of the industry, so the movement of the center of manufactures, during each decade, can be considered as the movement of the entire industry.

On page 39 is a sketch map on which is indicated, by symbols, the location of the center of manufactures at each census from 1850 to 1900 and 1920, and

the center of population from 1790 to 1920, bringing out clearly the steady westward movement of both manufactures and population.

The center of manufactures in 1850 was in Pennsylvania, 7.5 miles north by west of Mifflintown, and the center of population at the same census was located 23 miles southeast of Parkersburg, in the present state of West Virginia, 240 miles southwest of the center of manufactures. In 1860 the center of population had advanced 80.6 miles nearly due west, while the center of manufactures had moved in a westerly direction 100.2 miles. From 1860 to 1870 the center of population moved 44.1 miles north of west, while the center of manufactures moved slightly west of north 17.4 miles. From 1870 to 1880 the center of population moved south and west 58.1 miles, while the center of manufactures moved north and west 23.7 miles. From 1880 to 1890 the center of population moved slightly north of west 48.6 miles, while the center of manufactures moved south of west nearly twice that distance. From 1890 to 1900 the center of population moved almost directly west 14.6 miles, while the center of manufactures moved in a parallel line nearly 40 miles, or over twice the westward movement of the center of population. In general, the center of manufactures has followed the center of population in its westward movement, but not always along parallel lines, the greatest variations noted being from 1860 to 1870 and 1870 to 1880. From 1850 to 1860, 1880 to 1890, and 1890 to 1900, the center of manufactures made a greater western advance than the center of population.

The value of products of manufactures was not tabulated by counties at the census of 1910, therefore, it was impossible to compute the center for that census. In 1920 the center of manufactures was located in latitude 40° 28' 13" and longitude 83° 40' 0", 0.7 of a mile north of Rushsylvania, Logan County, Ohio. The point was, therefore, located 71.9 miles west and 9.6 miles south of the center of manufactures in 1900. As the center of population progressed but 48.6 miles west, from 1900 to 1920, and the center of manufactures 71.9 miles west, the center of manufactures made a greater western advance than the center of population, due principally to the great increase in the value of products of manufactures in the Pacific Coast states in 1920, as compared with 1900. The movement of the center of manufactures from 1850 to 1920 was 329.2 miles, while the movement of the center of population during the same period was 290.2 miles, indicating that the movements of manufactures and population are closely related. In 1920 the latitude

CENTER OF MANUFACTURES.

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of the center of manufactures was 1° 17' 52'' north of the center of population, approximately 89.5 miles, and east 3° 3' 15'', or 162.5 miles.

In order to show the relation between the total value of products and the number of wage earners the center

of the number of wage earners was computed for the first time in 1920, and was located at latitude 40° 22' 48'' and longitude 82° 39' 32'', 1° 0' 28'', or 53.2 miles east, and 5' 25'', or 6.2 miles, south of the center of the total value of products.

POSITIONS OF THE CENTERS OF MANUFACTURES: 1850 TO 1900 AND 1920.

CENSUS YEAR.	North latitude.	West longitude.	APPROXIMATE LOCATION BY IMPORTANT TOWNS.	MOVEMENT IN MILES DURING PRECEDING DECADE.			
				From point to point in direct line.	Westward.	Northward.	Southward.
			VALUE OF PRODUCTS.				
1850.....	40 41 42	77 25 9	7.5 miles north by west of Millintown, Pa.....	100.2	99.7		10.0
1860.....	40 33 1	79 18 50.	5½ miles west, 6½ miles south of Indiana, Pa.....	17.4	6.2	16.3	
1870.....	40 47 13	79 25 58	6 miles east, 3½ miles south of Kittanning, Pa.....	23.7	23.6	2.4	
1880.....	40 50 9	79 53 0	2 miles east, 2 miles south of Butler, Pa.....	88.4	88.0		9.0
1890.....	40 42 22	81 33 37	8½ miles west, 7 miles south of Canton, Ohio.....	39.4	39.0		5.8
1900.....	40 36 36	82 18 7	3 miles southwest of Loudonville, Ohio.....	72.5	71.9		9.6
1920.....	40 28 13	83 40 0	0.7 mile north of Rushsylvania, Logan County, Ohio.....				
			AVERAGE NUMBER OF WAGE EARNERS.				
1920.....	40 22 48	82 39 32	2.4 miles southeast of Sparta, Morrow County, Ohio.....				

1 Movement from 1900 to 1920.

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